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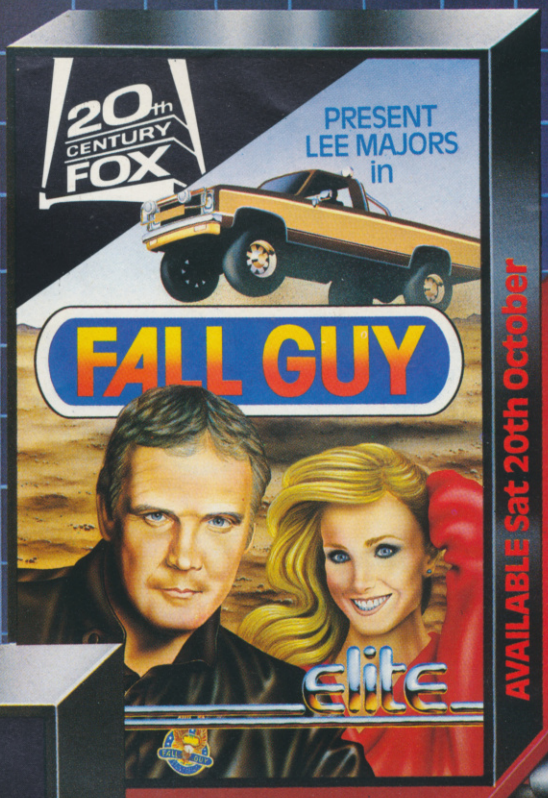

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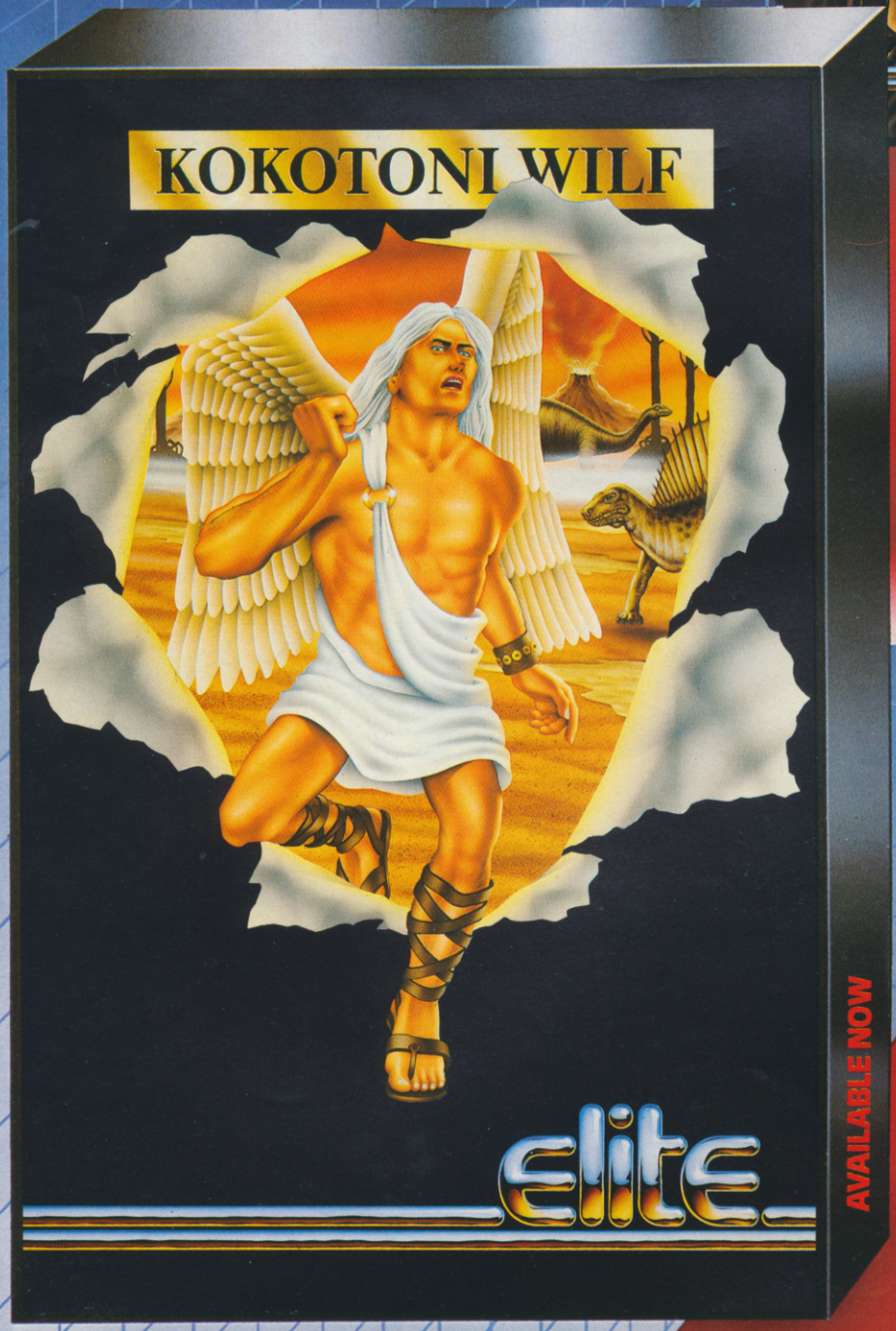

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IF IT'S AN ARTFORM IT MUST BE O.K.

It seems a little ironic that the oldest form of computer game — the "Adventure" — is today both the fastest-growing and the form that seemingly holds the greatest untapped potential.

Even in the six months since BIG K last covered this subject in any depth (May issue), the numbers and types of computer adventures have taken off in a kind of interactive mini-boom. New varieties and sub-varieties have appeared. No longer is the humble text-only job alone in the world. We have graphic adventures, some aiming for a "movie" feel, others for a "comic" look; combined arcade-adventures; quasi-adventures; multi-player adventures for micros and mainframes; and mixtures of all of the above.

It's also true that the basic adventure format — interaction with the software via keyboard input — is now recognised as the bedrock for a whole future artform. And where the word "artform" leads, can "respectability" be far behind? Will some of the terminal computerphobes who guard the nation's culture soon be forced to chuck in the sponge and admit that perhaps computers are not, after all, Satan-inspired? Watch this space . . .

TONY TYLER

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Travel in time back to World War 1 (p.100), to the near future with MSX (p.76) or to a mythical past as seen through the eyes of Dorkslayers everywhere (p.40).

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by KEVIN FLYNN

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LEGEND ELBOWS GODS, JOINS SPACE RACE

The Great Space Race is that much-speculated upon entity — the follow-up to Legend's highly innovative, highly successful 'computer movie' (their description) *Valhalla*.

Out go any traces of Norse gods, myths, legends and graphic adventure elements and in comes the hi-tech world of the future in what looks to be a very sophistaicated arcade game with strategy overtones and single keypress commands. As usual Legend are saying little, grinning a lot and fuelling what they call the 'wind up' to the launch in late September/early October (even that's not definite).

As of writing, Chairman John Peel has gone as far as describing *The Great Space Race* as ". . a spectacular futuristic romp, with the emphasis on fun and entertainment. We saw the opportunity for a completely new kind of computer entertainment; one that goes beyond arcade and adventure games but retains the best elements of both."

TGSR (as it's called around Legend's Chingford command post) has two main phases, both with time limits. In the first, pre-race section, the player has to wheel and deal to get the best spaceships, weapons and personnel for his team. The race itself is a fast-paced, anything goes event pitting the player against time, natural obstacles and other competitors.

Movisoft 2, a development of the original Movisoft used in *Valhalla,* is the operating system for *TGSR*. Legend promise, ". . True solid 3D graphics, which, under the control of a computerised 'camber director' create the most realistic and spectacular pictures ever." Full facial animation is claimed to be another first for *TGSR* enabling players to see the characters on-screen in detailed close-up.

Legend Managing Director Jan Peel told BIG K that *TGSR* had come about largely in the same way as *Valhalla*. "We asked dealers what they wanted to see in a new computer game," she said. "Just as they said when we started *Valhalla* they asked for something entirely new, entirely amazing, original and with spectacular graphics!" With the gauntlet hurled Legend set about coming up with the goods. According to Jan the bill for production costs alone came to a quarter of a million pounds by the time *TGSR* was complete. However, with *Valhalla* already having grossed over £2m (see BIG K No. 1) the investment seems worthwhile.

The Great Space Race will be released simultaneously for the Commodore 64 and Spectrum 48K. Price has yet to be confirmed but is expected to be around £14.95.

Meanwhile, *Valhalla* lives on and is spreading its wings on the international scene. John told us that he is negotiating with a "very, very large U.S. software company" (as opposed to 'very large' or just plain 'large') for the Stateside release of *Valhalla*.

Original sketch and computer image (inset) of TGSR character

NEWT MEN ALIVE AND KICKING

***BRIGHTON-BASED** software company Salamander are not going out of business.*

Despite reports elsewhere in the computer press to this effect, last month company directors hit back at what they said was "an urge to write us off . . . we are alive and well and would appreciate the decency of a phone call before wakes are organised."

MSXTRA!

MITSUBISHI, MAKERS of the wartime Zero fighter, have entered the rapidly growing MSX market with a personal computer, the ML-F110.

Recently seen in top-secret test flights over the Pacific island of Iwo Jima — where it came under intensive American AAA fire — the lightweight F110 is apparently distinguished by its extraordinary manoeuvrability, great firepower and ability to carry a massive payload. However it appears to be relatively underpowered at 32 Horserams (compared to the 64 of other fighters in the same strategic arena).

Meanwhile more details of the Sanyo MPC 100 MSX machine (see photo) have been revealed. It differs from other makes in possessing a light pen facility.

THRILL-POWER PEAKS AT QS

QUICKSILVA have successfully concluded an historic deal with The Mighty Tharg, alien editor of Britain's top (and the Galaxy's Greatest) science fiction comic *2000 AD* to produce computer games featuring his awesome characters.

The first game, *Strontium Dogs and the Death Gauntlet,* is due out now and stars Johnny Alpha, mutant bounty hunter of the future. *Strontium Dog* is probably *2000 AD's* second all-time most popular series after the top-rated Judge Dredd. Other *2000 AD* mega-stars include *Robo-Hunter, The A.B.C. Warriors, Rogue Trooper* and *Ace Trucking Company.*

Asked about future plans, Quicksilva's Mark Eyles said that provided this first time went well others would follow.

BIG K was honoured to be granted ten seconds of the Mighty Tharg's valuable time. He would not be drawn on the details of the deal but confirmed that several crates of plastic cups (his favourite Earth food) were involved. The Mighty One also stated that Quicksilva's game would be, "... zarjaz, scrotnig, ghafflebette and that only a grexnix would miss it."

Strontium Dog and the Death Gauntlet will initially be available only on the Commodore 64 with the Spectrum version following soon after.

YANKS LAND ON SOFTWARE PROJECTS

From our War Correspondent

DATELINE: LIVERPOOL. A new development in the escalating Battle for Britain took place as American software forces infiltrated yet another British software house. (See *On-Line News* last month for first reports of the Invasion threat.)

Units from Sierra and Broderbund, two crack American software houses, reached a bloodless agree-

CHEAPSKATE CORNER

IT AIN'T what you prog, it's the price that you flog it — that's what gets results. Or at least that's what incresing numbers of companies are trying to find out. Great amounts of games priced at £1.99 are being bought to our attention, in what's obviously going to be the great race to fill stockings this Christmas.

Svengalis of cut-price, Mastertronic, have built their empire on lower market echelons. Their latest offerings are *Psycho Shopper* and *Alcatraz Harry*. Then there's that blatantly booze besotted lot — Beau-Jolly (geddit?) who've masterminded the computer equivalent to the party six pack. There's one for each of the CBM 64, 48K Spectrum, and Vic 20, at £14.99, plus the 16K Spectrum four-pack at £9.99.

Another newcomer to Cheapo Corner is Atlantis. They're sitting on a nest of games for all major machines and are going into a slow hatch of four per month. Then there's Scorpio Gamesworld. Not only have Scorpio bought out a £1.99 graphic adventure for the Spectrum, *Codebook Caper*, but they've a whole bunch of games for the Texas T199.

VIVA EL

SPAIN! LAND of sunshine, warm seas, paella, bullfights . . . and the Dragon couputer.

Come again?

It's true, 6809E fans. The all-Welsh Dragon 32/64 series, once the pride of the BritMicro industry — and more recently just the latest in a series of BritMicro disasters — has finally been rescued from oblivion by a Spanish-based company called EuroHard.

The giant GEC company, who initially stepped into the breach when Dragon looked like going down earlier this year, will continue to distribute and service the machine in the UK. However, yet another new company — called Touchmaster — has been set up to coordinate the transference of the production lines from the Land of

ment with Software Projects for the release of their games.

Sierra's armoury is known to contain some particularly big guns in the form of licensed games based on top comic strips 'B.C.' and 'The Wizard of Id' as well as the recent deal with Walt Disney to produce games featuring their characters. Alan Maton, C-in-C of Software Projects, said that they now had access to most of Sierra's inventory and would be converting it for use in British machines. First out will be *B.C.'s Quest for Tires*, available immediately for the CBM 64 on disc and cassette and soon for Spectrum.

Broderbund, while not sporting quite as many well-known products as Sierra, has *Lode Runner*, a particularly popular game in the States. SP will be making this available in the U.K. on the Spectrum and CBM 64.

Meanwhile SP are marshalling their own forces for an assault on as many machines as possible with their own big gun, *Manic Miner*.

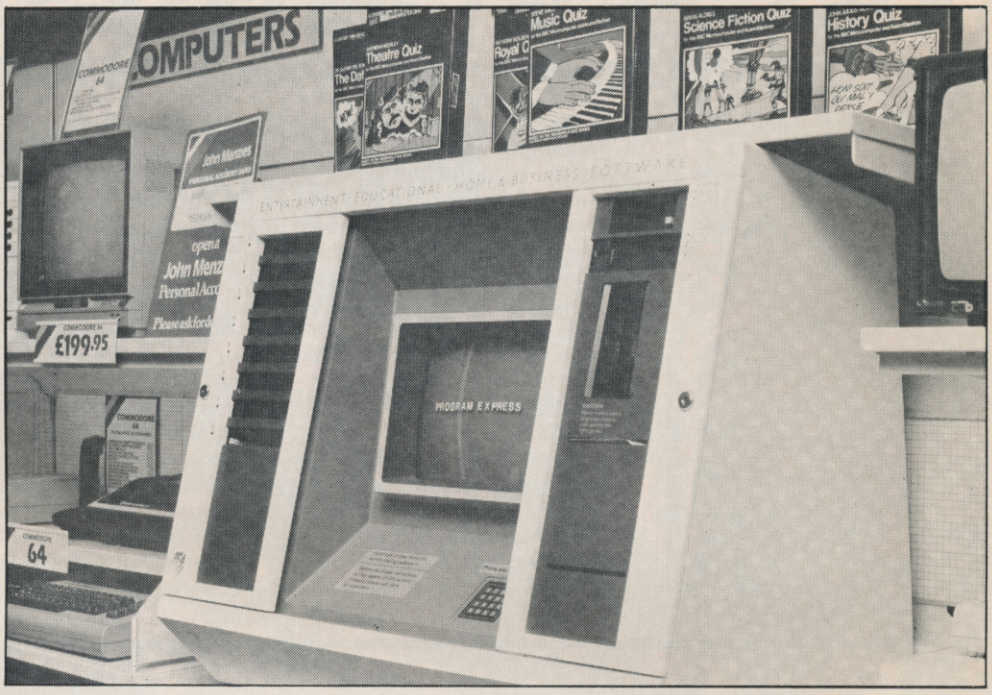
Your correspondent doesn't expect this to be the last skirmish in the attempt to take over Britain's domestic software industry and urges vigilance at all times.

DRACO!

Mists and Eisteddfods (Spain) to the land of pesetas and shark-infested seas (Wales).

Meanwhile, mixed fortunes continue to attend the Oric/Atmos range. Amid rumours of impending liquidation of the British end of the company, Oric Computers continue to sell a storm in the Land of the Franc and the Pissoir (France). This major Euro-success story in its own right has now been added considerable weight by the news that a new market appears to be opening up with the securing of a £3/4 million deal to sell machines to Germany (the Land of Würstchen and Wunderkinder) and Switzerland (Fully Debugged Cuckoo Clocks).

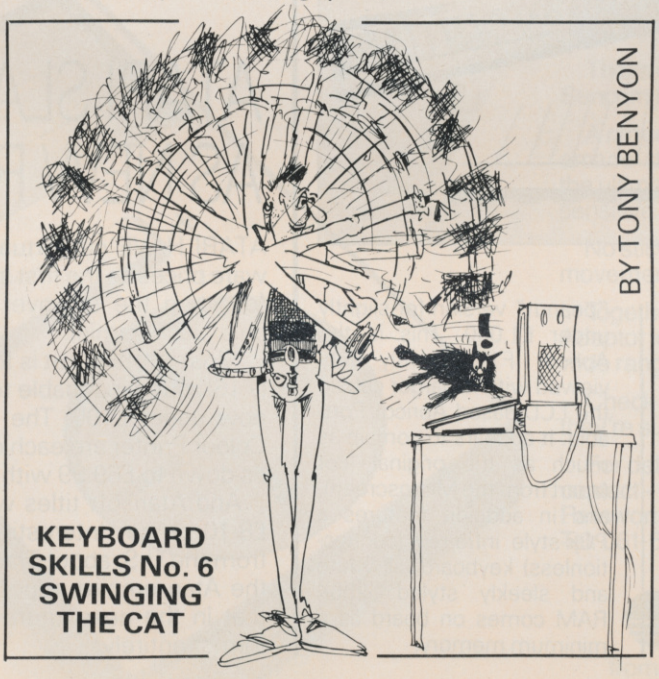
BUT DOES IT SELL DRINKS?



Is it a cash-point? Can it vend you a drink? No, it's an Electronic Software Distribution System (EDOS). Edos Cudos will belong to John Menzies early next year.

The machine will quickly reproduce any of its store of 1,000 programs onto tape, disk or cartridge, eliminating the need for shops to hold massive software stocks. You simply choose by scrolling through its inventory, and all the retailer has to do is slip out the data slug and slap it into its relevant packaging.

Progs come telephone linked from the central main frame in Edinburgh. Of course, there could be some of those exciting new bugs that have a habit of slipping into any new system, but theoretically, this sounds like the end to the big wait for new software.



KEYBOARD SKILLS No. 6 SWINGING THE CAT

COULD THIS BE THE END OF PIRACY AS WE KNOW IT?

IN THE endless fight of civilisation against the parasitic preyings of piratical predators (that's you, Kevin), the Industry have given you dongles, G.O.S.H., Software Projects' colour cards . . . and now holograms.

Not (we hasten to add) the laser jobs that cost about 20K apiece, but 3-D effect stick-ons on the lines of those funny matchbooks you get from Japan Air Lines. The suppliers, Elite Systems, claim that these small eye-bending silver logos are obtainable from only one source in the world, and therefore that counterfeit Elite games cannot carry them.

THE EDGE

IN FROM THE EDGE

HIGH QUALITY software is beaming in from The Edge, newly formed offshoot of Softek International, purveyors of fine games to the gentry for some time.

The Edge is a group of freelance programmers spread throughout the computer-literate world who, along with graphic artists and musicians are devoted to pushing back the frontiers of computer gaming on the established home micros.

How about a 1,000-plus screens of arcade action? The Edge delivers that on *Quo Vadis* and *Psytraxx*, its first two releases for the CBM 64 and Spectrum.

The Edge term these offerings 'megagames'. Take a look at the 'gee whiz' data on *Quo Vadis*: 118 caverns, 115 passages (the longest 14 screens in length).

Starbike is a space arcade adventure (that just about covers everything!) involving skill and strategy for the 48K Spectrum. A prize awaits those gamers who locate a hidden code number.

Fourth and last of the first batch of releases is *Firequest*, subtitled *The Further Adventures of Ugh* it features the cavemen from Softek's popular release *Ugh!*.

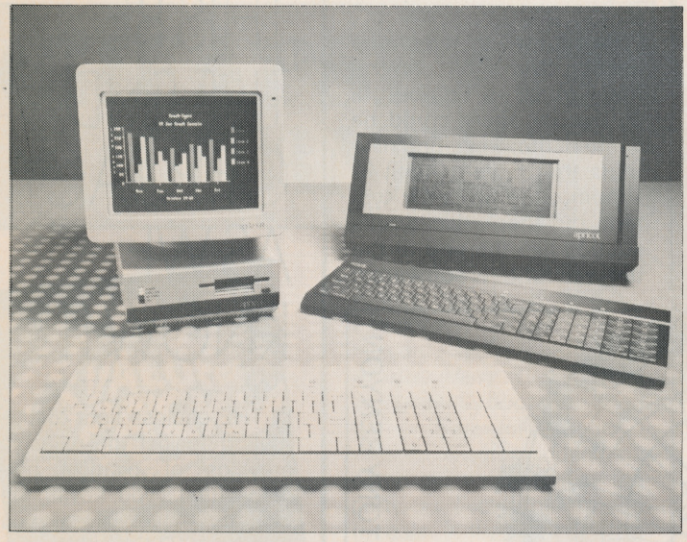
All four games will be appearing under the banner of The Edge and will retail at £9.95 for CBM 64 editions (*Starbike* costs £5.95).

BARNEY O'BEEB AND THE LITTLE PEOPLE

ACORN COMPUTERS are to set up manufacturing in the Republic of Ireland.

In the first planned year's operation 5,000 BBC Model 'B's will roll off the Dublin production line, which was due to be set up by the end of this month.

DROOLWARE CORNER



YES, YES, we know you can't afford it — but who knows? That game you're working on right now might (just might) connect in a big way . . . and then you'll naturally want to go 16-bit and clean up the rest of your act.

Geddit? Oh, well. News is that ACT, makers of the lovely and much-praised Apricot 16-bit biz machine, have revibed the spec. down to what looks like an even nicer "peanut" version for slightly under £1,000. This is the Apricot F1, recently previewed with its larger cousin the LCD-based Apricot Portable. It appears to contain as much as the original 'cot (apart from the Microscreen), and in addition features a PCjr-style infra-red (connectionless) keyboard, all white and sleekly styled. 256K RAM comes on board as a minimum memory.

NO STRINGS ON CRL

Puppet fever seems to have broken out at CRL. Following acquisition of rights to *The Magic Roundabout* and *Terrahawks* games the company has now announced its agreement with Gerry Anderson to produce a game produced on his classic *Thunderbirds* TV series, first seen in the sixties and soon to return to TV in a brand new series (yay!).

Terrahawks — Anderson's most recent TV work — has been written for the 48K Spectrum by acclaimed software author (and BIG K columnist) Richard Taylor and is said to feature "almost perfect 3D simulation". No details are available on *Thunderbirds* as of going to press.

ATARI SLASH PRICES AS NEW REGIME BITES

ATARI HAVE cut virtually all their hardware and software prices as the first steps in the fightback to success following the takeover two months ago by ex-CBM chief Jack tramiel.

Most startling cut is for the 600XL computer (basically 16K but expandable to 64K via a RAMpack), which is now under £100. The 1050 disc drive and the 1020 Colour Printer are each cut by £100.00. The VCSjr comes down to £69.99 with its carts retailing at £10-13.

And Atarisoft titles will also be cut — down to the £8-10 range. Interestingly, amid conflicting rumours from the U.S. about Tramiel's overall strategy in buying the Atari empire, reports are now emerging claiming that in the near future *Atarisoft* will dump the CBM format entirely.

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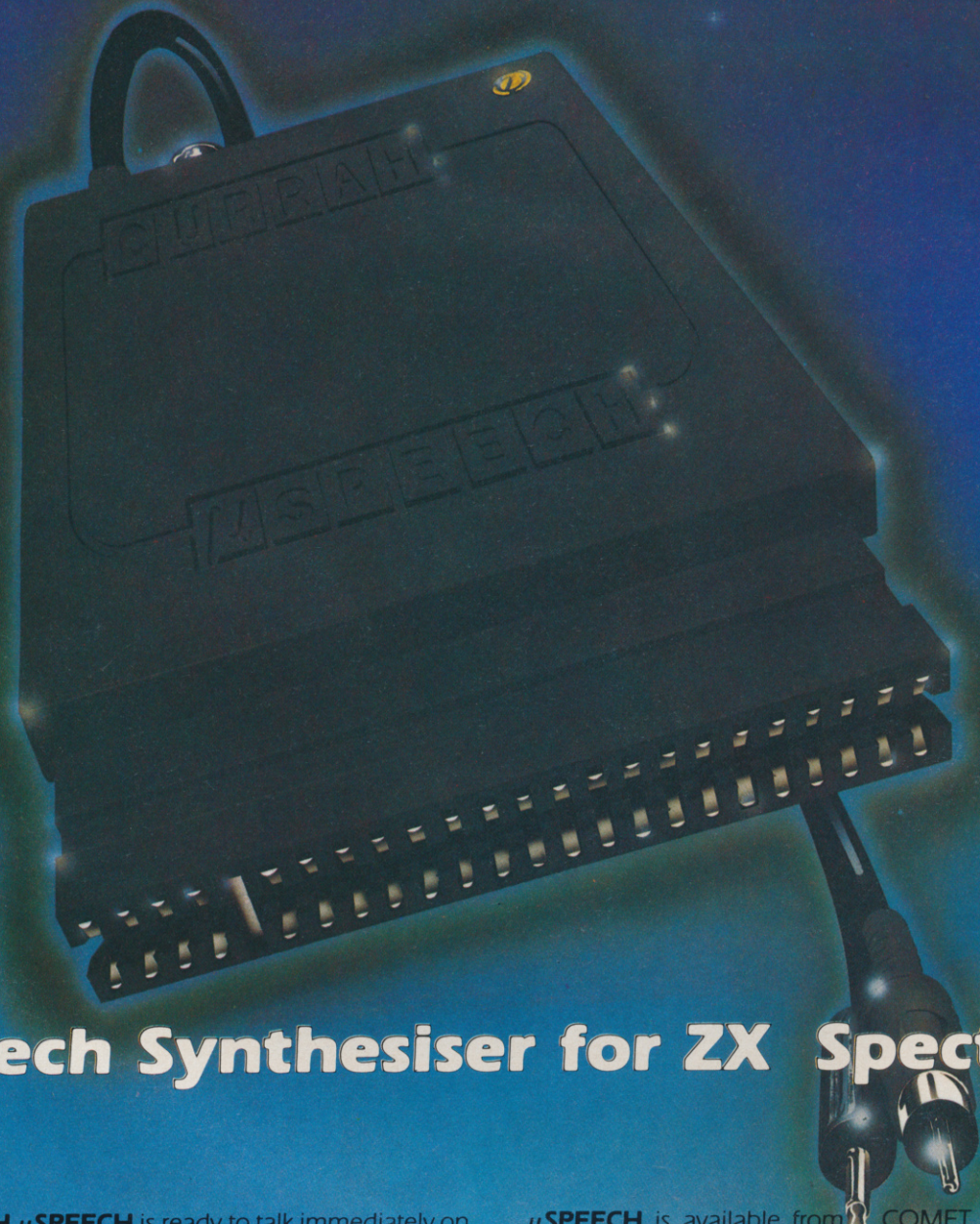

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MAY THE FORCE BE WITH YOU?

THE AUTHORITATIVE voice of Holmes, supersleuth, has been given a new lease of life. HOLMES — Home Office Large Major Enquiry System — will be a computer system to coordinate and collate all the data that pours into police incident rooms across the land. They added 'Large' to lend it less of a 'household' name — (what won't these people do?)

The Home Offfice are vetting likely candidates for contracts (they wouldn't name names), hoping to get HOLMES on his feet by January 1985. The force are likely to house an agglomeration of existing compatible mainframes and micros, for which special software will be written.

HOLMES will link up clues, and match similar cases up and down the country. His cross referencing abilities will improve upon the existing thousands of card files (understatement of the year, surely). For example, if a detective makes a search for suspect 'Anthony', Holmes will also give him a 'Tony' and 'Tone'. But if our editor was to run off with all next year's competition prizes, would it also search for him under his better known handles of 'The Big Cheese' and 'Loud Mouth'? We will find out. Let's hope he never has to.

Our natural paranoia led us to enquire as to the extent to which HOLMES would be allowed to go on line in his quest to control crime. Will he talk to immigration control, over-ride company accounts or share a hotline with Margaret Hacker? The Home Office were not amused.

"We will be confined to the incident room alone," they said. As we said. We'll find out. Let's hope we never have to.

NICKY XIKLUNA

NO, NOGGIN THE NOG DOESN'T LIVE HERE

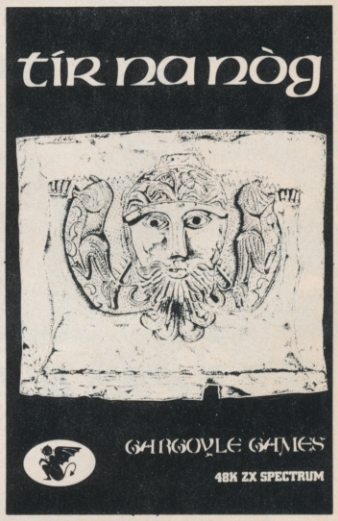
TIR NA NOG, as every reader of *2000 AD's* sword and sorcery series *Sláine* knows, is the ancient Gaelic name for the Land of Youth (or Land of the Young, depending on your historical preference).

Tir Na Nog is also the name of a new graphic adventure from Gargoyle Games for the 48K Spectrum due for release next month. It features the exploits of the great hero, Cuchulainn, following his departure from the world of the Living, his entry into Tir Na Nog and his subsequent attempts to locate and reunite the fragments of the Seal of Calum.

Gargoyle claim ". . State-of-the-art film animation" in the game's graphics. The main character stands 56 pixels tall and a total of 64 frames are required for the complete animation of the figure. He is situated in a complex landscape which can be viewed from four different 'camera angles', like Quicksilva's *Ant Attack*.

The game cassette will come in a presentation box with a cover depicting the Celtic God Cernunnos (you must remember him), a map, instruction book and extracts from the History and Peoples of Tir Na Nog. Everything you need for a jaunt through myth and legend.

RICHARD BURTON



FALL GUY GOES SOFT

The Fall Guy is the latest TV series to get the made-for-computers treatment. Newly-named Elite Systems Ltd. (formerly Richard Wilcox Software) have a new game on the stocks based on the popular (it says here) TV series showing on ITV.

For those who may have missed the series (for shame) it stars Lee Majors as Colt Seavers, a top Hollywood stuntman who moonlights as a modern-day bounty hunter, bringing back to justice people who have jumped bail. He is aided in his work by typical, boneheaded young sidekick Howie Munson (Doug Barr) and don't-call-me-dumb blonde Jody Banks (Heather Thomas).

Elite's game will be an arcade adventure featuring the player as Colt Seavers in pursuit of a couple of Bail Bond Jumpers. Needless to say, a number of Hollywood-type stunts will have to be performed by Colt before he gets his men in this fast action multi-screen game.

The Fall Guy will be launched jointly for the Commodore 64 and Spectrum computers towards the end of October. Pricing will be £6.95 for the Spectrum and £7.95 for the CBM 64 (£9.95 for disc edition).

BIG K will have an exclusive review of *The Fall Guy* next month.

NEWS feature

BIG K PROMOTES DETENTE ...

HOW DO YOU SAY 'POKE' IN RUSSIAN?

. . . Because trade barriers are coming down, and before long Warsaw Pact punters will be cursing the membrane keyboards of their ZX81's (just like the rest of us). NICKY XIKLUNA reports.

EXCELLENCY. Work continues at Bogdanov Oligarchical Soviet-Leninist Hi-tech Institute (BOLSHI). Da! Professor Chomski has announced this week his stunning new 13K machine! Have no need of bourgeois individualist miniaturisation habit. But working night and day to make model to leave by door. Is making transportation difficult.

Is also big problem, Excellency, as revised (1985) five year plan demands that eight million babushkas own micro. Is good idea to exploit — I mean try out — the Western Capitalist technology? Just until the mighty production lines start to roll?

Your humble sputnik,
(deleted)

IF YOU thought our Russian letters were a good joke — you're wrong. (They're a bad joke.) Also they're not far from describing what the real situation *vis-à-vis* East/West computer *detente*.

Computer sales to the East have been completely prohibited for years. Forget the exigiencies of the computer revolution — legislation has not changed since 1976! Now for the first time the embargo is cracking . . .

The USSR does make its own non-military computers — reportedly (hopefully?) inferior to Western counterparts. There are very few publicly available. In schools, only whizz-niks get a look-in, at special schools for maths virtuosos. So the USSR is itching to improve its stock of western computers — good news for the prolific industry here, eh? But things ain't that simple.

Sitting on trade restrictions is COCOM — the co-ordinating committee controlliing high tech trade with the East. The nations therein have been in complete deadlock for the last two years — the main reason being . . . America (cue "Hail to the Chief").

"Exporting computer technology could constitute a major threat to US National Security", said William Archey, Deputy Assistant Secretary of Commerce for Trade and export control, recently. "Sophisticated weapons today depend on dual use technology — civilian and military." For starters, it's said that the Apple II alone is fully capable of missile guidance (if not when runnng Applesoft!).

The Assistant Secretary for US defence has cited the fully computerised 9th American army Division as the sort of thing the Russians want to emulate. "Humph!" said a USSR press rep. "They *would* say that, wouldn't they? Americans always overreact."

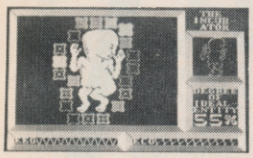
Meanwhile, Western companies are steeling themselves for fierce competition over export to the Soviet bloc. Rumour has it that four hundred ZX81s are already lined up ready for shipment to Czechoslovakia. (That should worry the Pentagon.) It has also been alleged that Acorn has spent thousands on several Beeb-promoting visits to the East (see also BIG K issue #1).

"Not true," says David Springle, Acorn *grand fromage*. "It'll be at least two years before trade starts. You journalists have been hassling me all week. I've just come back from holiday in Russia — that's all!"

Not a lot of agreement, generally. One thing's for sure — computers sold to the USSR'll have no capability to talk to each other *à la* Micronet or Prestel. So don't expect to tap Rusknet, Sovinet or Rednet. Meanwhile, Big K is waiting for some interesting Socialist/Realist software to break borders — or perhaps the arrival of the odd dissident (corrupted no doubt by a sneak preview of *Jet Set Willy*). Until then, *nastrovia*.

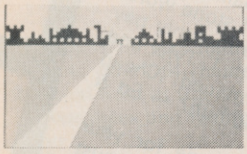
AUTOMATA U.K.

The Piman's Software House



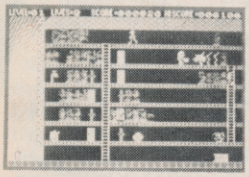
DEUS EX MACHINA

DEUS EX MACHINA 48K Spec. Kempston Joystick & ZX Interface 2 compatible. The unique new era of entertainment, starring Ian Dury, Jon Pertwee, Frankie Howerd and you, in an animated televised fantasy, synchronised to an incredible stereo soundtrack. There is nothing like it in this world.



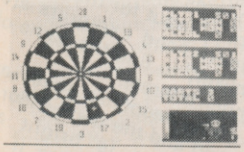
PIMANIA

PIMANIA 48K Spec. The Cult Adventure that's for real! Could you be the lucky winner of 'The Golden Sundial of Pi'? Many have tried and failed. Voted program of 1983 by the Computer Trade Association (Joint winner).



PIROMANIA

PIROMANIA 48K Spec. M/C Arcade Style, Kempston Joystick & ZX Interface 2 compatible. Strike a light! Fire your imagination. That bright spark of a Piman is flaming well out to make the residents of Automata Towers the toast of the town! Can you help Walter Hose dampen the Piman's extinguished career and help the inmates give up smoking?

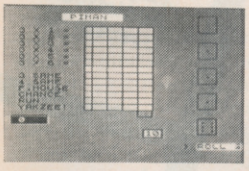


DARTZ

DARTZ 48K Spec. Family fun. This 'arrowing version of your local's favourite game! Includes true life scoring with 'The more you play the more you drink, the worse your game becomes' rule!

PI-EYED

PI-EYED 48K Spec. M/C Arcade Style. Kempston Joystick compatible. The Piman's hit the bottle! Can you help him negotiate the traffic and drink the town dry?

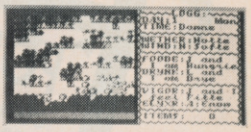


YAKZEE

YAKZEE 48K Spec. and Dragon. Family fun. An oriental game of luck and skill for 1 to 4 players, playing between 1 to 4 rounds. Each tape comes with both the Dragon and the 48K Spectrum versions along with a simple to follow guide on how to play YAKZEE.

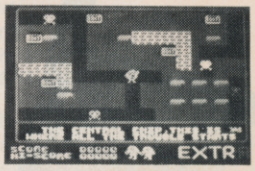
NEW WHEELS JOHN? 48K Spec. Family fun. Would you buy a used motor from this man? Dare you clock an old banger? Have you ever wondered what it's like to run your own second-hand car lot? Wheel leave the rust to you!

CRUSOE 48K Spec. M/C Graphic & Text Adventure. Shipwrecked and stranded, on ye remote island, with nothing save a bottle of Granny's patent elixyr, an empty stomach, ye shorts that he stands up in . . and thou. Ye adventure is only just beginning. Can you help him escape ye island's perils?



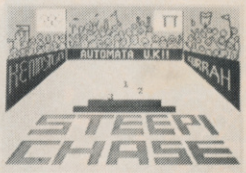
CRUSOE

PI-IN'ERE 48K Spec. M/C Arcade Style. Kempston Joystck & ZX Interface 2 compatible. 61 screens of action as Burt searches for the elusive bug inside a computer, while keeping out of the reaches of the minor menaces. The program includes Hi-Score, Save and Load facility as well as Replay from last position feature.



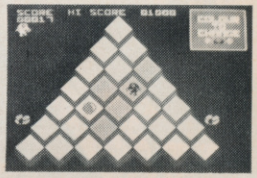
PI-IN'ERE

OLYMPIMANIA 48K Spec. M/C Arcade Style. Currah Micro Speech & Kempston Joystick compatible. For all those who just can't get enough of the Olympics, the Piman stages his own just for you! Yes he's going for gold in the craziest events you've ever seen! Can you set new world records in the Speepichase, Alpi Ski-ing, Pitathlon, Pi-Jump, or even the Butterpi? The Piland International Anthem on the flip side.



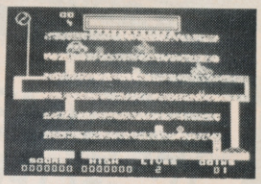
OLYMPIMANIA

PI-BALLED 48K Spec. M/C Arcade Style. Currah Microspeech & Kempston Joystick compatible. Bouncy, bouncy, this fast action game will let you have a ball! Starring The Balls Brothers, Sid the Snake, Jas'n'Col, and your friend and ours The Piman.



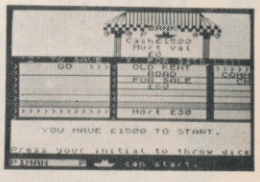
PI-BALLED

MORRIS MEETS THE BIKERS
16/48K Spec. M/C Arcade Style. Kempston Joystick compatible. Morris finds himself abandoned in a multi-storey car park. Help him gather the 10 coins per screen to pay his way out, while avoiding the kamikaze bikers.



MORRIS/BIKERS

GO TO JAIL 48K Spec.
Family fun. A computer property trading game for up to 5 players. Your computer not only acts as a banker, but can also take on the roll of a ruthless player, buying, selling and trading its own property.



GO TO JAIL

BACKCHAT CBM64 Speech Synthesiser. Automata's speech synthesiser comes complete with easy to use Programming Manual and Software cassette containing both BASIC & M/Code programs, so you can now add speech to all your home grown games using BACKCHAT's allophone vocabulary.

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POD HOPPER

CUTHBERT IN SPACE/ DRAGON

Cuthbert's back, or rather gone. Three different screens show gravity defying platforms which support fuel pods on some far off planet. Microdeal's harassed hero must leave the mother ship which is at the bottom of the screen, collect a pod and return. Objects which hurtle across the screen are out to stop him but Cuthbert's flitter, used for his excursions, can spit destruction at them.

Control is via joystick or arrow keys plus spacebar and response is excellent . . . and it needs to be. Getting those pods whilst dodging and firing continuously is a hectic task. Success in retrieving all 15 pods is rewarded by a shower of objects from the top of the screen which you can collect while still contending with the horizontal horrors. Your destruction or a swift retreat to safety means you are presented with another screen of fuel pods to collect. Sometimes your game is interrupted by a tedious event whereby you use the controls to manipulate figures . . . sorry, co-ordinates, to simulate collecting spare parts to mend your damaged ship.

There is a game pause feature and a high score table. Unfortunately, all the high score positions are preset at 5000. This is difficult to achieve and so the table often remains unused. Silly Microdeal. In fact, this game is difficult, frustrating . . . and great fun. Animation is smooth and the hum as the bay doors open to reveal Cuthbert's flitter is just right.

— T.S.

Maker: MICRODEAL
Format: cassette
Price: £8.00
Graphics: KK
Playability: KK
Addictiveness: KKK
Overall: KK

HOT ROCK

RUBY RUNABOUT/ SPECTRUM 48K

Reggie the Robber is a nasty piece of work. He'd sell his pet hamster to Pedigree Chum if he thought he'd make a bob or two. So imagine his delight when he hears of the fabulous Rock Salmon Ruby, a hefty hunk of stone worth more than the monthly pay packets of both T. Tyler and R. Burton combined! (Cheap hunk of rock, huh? — Ed & Asst Ed).

Thus the scene for your adventure is set. You must aid Reg the tea-leaf in his attempt to purloin the gem and abscond to foreign parts. However, it's unlikely that this task will take very long. The game features only 40 locations, 20 of which are neatly (and quickly) illustrated. Hardly a challenge by current standards. There's little freedom of input for the player. Experienced explorers are unlikely to find the game of much interest.

Still, response times are good and the demeanour of the piece is bright and colourful. I guess if you wanna buy a prog for you kid sister this could be one to go for. — S.K.

Maker: SCORPIO SOFTWARE
Format: cassette
Price: £1.99
Graphics: KK
Playability: KK
Addictiveness: K
Overall: KK

DEADSHEET

NEW VENTURE/ SPECTRUM 48K

A po-faced simulation for prospective accountants. The object of the game (I use the term with all due respect, gents) is to run a business (you're given the option of buying either a small village shoppe or a big town megastore), scam the taxman and acquire whatever luxuries (bonus points!) you can afford. The menu offers an opportunity to place ads in the media, visit your bank (presumably to pay for the ads) and plan effective stock management. Yawnsville dad. You continue all this until you've earnt enough filthy lucre to afford the fabled Falcmobile. At that point you're so disgustingly rich the program can bear no more and dies. It's a sombre lark indeed.

The inlay card declares: Because of the complex nature of this program we are putting a PG rating on it. Suitable for only intelligent people above the age of 14 years old. Well "PTOO! FOOEY!" to them, eh kids! We don't wanna play their stupid game anyway. — S.K.

Maker: FALCON COMPUTING
Format: cassette
Price: £5.95
Graphics: K
Playability: None
Addictiveness: None
Overall: K

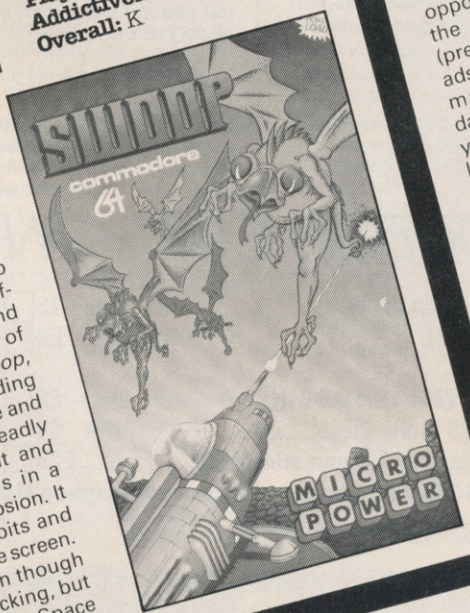
SWOOP/CBM 64

THE CURSE OF THE INTERSTELLAR CAGE-BIRDS

Well now, what have we here? *Space Invaders* with parrots. Faced with a massive flock of parrots there are only three possible courses of action. Cover your head — if the stuff gets in your hair you'll never get it out, if you get my drift; run like hell and be branded a coward for life, or reduce them to component parts and make a fortune in the Kentucky fried/feather duster business. Me, I plump for that last option.

Apart from a few minor details this is a tarted up *Space Invaders*, the only difference being the parrots and their disconcerting habit of swooping — hence *Swoop*, geddit? — from their holding pattern in the skies above and depositing a rather deadly egg next to you. Hit it and your ship disappears in a most impressive explosion. It sort of breaks up in bits and spins away and off the screen. It's quite nice even though the sound is a bit lacking, but all the same it's still Space Invaders. Something a bit more original would have been better. — K.A.

Maker: MICRO POWER
Format: cassette
Price: £6.95
Graphics: KK
Playability: KK
Addictiveness: K
Overall: K



REVIEWERS:
Steve Keaton
Richard Burton
Trevor Spall
Kim Aldis
Tony Tyler
Nicky Xikluna
John Conquest

IDEAL HOLMES

The world's most famous detective made his first appearance 100 years ago in a magazine story called 'A Scandal in Bohemia'. Today, he lives on in the form of a computer adventure from those Wizards of Oz, Melbourne House.

From: MELBOURNE HOUSE
Format: cassette. Price: £14.95.

EVENING was falling over Baker Street and Sherlock Holmes and I, as was our habitual wont at this time of day, were smoking our pipes and reading the evening newspaper.

"Great news, Watson!" said my friend, tapping his pipe out on my knee, while simultaneously measuring out a "fix" of cocaine.

"The game's afoot, Holmes?" I replied hopefully — for life in our Baker Street lodgings had, of late, been dull indeed.

"The game, old friend," replied he, "is more than a foot. It's ahead!"

I laughed — somewhat dutifully, I confess, since I had not the faintest idea what he was talking about and feared that the evil drug already coursing through his veins was rendering him incoherent.

"Ahead of what?" I ventured, eyeing the revolver on the nearby table and wondering if I could possibly get to it before he did.

"Of the competition, dear boy!" replied my friend. "See, it is here, in the newspaper. Melbourne has struck again!"

I replied that I did not know the gentleman, adding that I presumed it was yet another alias adopted by our old adversary, Professor Moriarty.

Holmes eyed me with a measure of impatience. "Sometimes, Watson, I wonder about you . . ." he sighed, then his gaze resumed its original piercing quality. "Melbourne," he said, "is not Moriarty. It is a company with, I believe, Australian connexions.

"Their line of trade is the manufacture of analytical games of a questing nature, to operate in conjunction with the Babbage Analytical Engine. I realise that this is possibly new to you, but then, you, with all your sterling qualities, do not follow scientific developments as closely as I. In brief, then: the company has already scored a remarkable commercial success with a game titled, I believe, The Habit. Naturally there has been pressure upon the directors to produce what is termed a 'follow-up'; and here, in the *Daily Chronicle*, is a report on the new product. Allow me," he continued, overriding my protests, "to read it to you. If there are any unfamiliar terms I shall explain them in due course."

He picked up the *Chronicle*, which crackled in his steely grip. I was pleased to note that the drug-induced brightness in his eyes had given way to the old eager glitter.

" *'Melbourne's new potential blockbuster displays many of the licks and trademarks which made its predecessor so famous: real-time action, a tough and intricate plotline, sturdy if transitory graphics, and a truly enormous vocabulary made relatively easy to handle by the use of Inglish'* — that's 'English' with an 'I', Watson."

Alimentary

"With an eye?" I responded feebly, for I had already found he had been correct: I barely understood a word of the report.

"Aye," he replied, and continued reading aloud.

" *'The story starts with the two main protagonists in the famous Baker Street sitting room. They are reading the* Daily Chronicle. *News in the paper of a murder in Leatherhead sets the famed pair off on the scent, by hansom to Victoria Station. In taking up the quest for the murderer(s), they are once again up against Inspector Lestrade of Scotland Yard.'* "

"The same Lestrade?" I asked, astonished.

"The same," he replied, and continued to read. " *'Getting Watson to read the paper is difficult, as the old boy seems almost paralytic with stupidity'* — I beg you, Watson, allow me to continue — *'but perseverance brings its own reward and soon you find yourself in the street.'* "

"The bounder who wrote this calumny will find himself in the street fast enough once I get through with him!" I roared, for I was incandescent with rage.

Holmes smiled thinly and continued to read. " *'Use of the Animtalk technique allows the player to give instructions to other characters in the game, a method first pioneered in its predecessor. However, asking Watson to, for example, pay the cabbie produces the usual dimwitted non-response and in the end you have to pay the man yourself.'* "

"By God —" I raved, stamping in fury at this unmitigated libel.

" *'At least the old codger doesn't hang around singing of gold — a small mercy but welcome enough.'* "

At this point I snatched the paper from my hawk-featured friend and read it myself.

" *As Holmes, you will find yourself extraordinarily lazy. You never walk anywhere, it seems, but stick to trains and cabs — in keeping with the great detective's naturally indolent character.'* " Holmes frowned, but already I was feeling slightly mollified.

" *'Moreover, real time passes, kept track of'* — poor English, there, Holmes, I fancy — *'by a digital clock on the screen. Incidentally, Typing the word NO produces what is colloquially known as a "crash".'* "

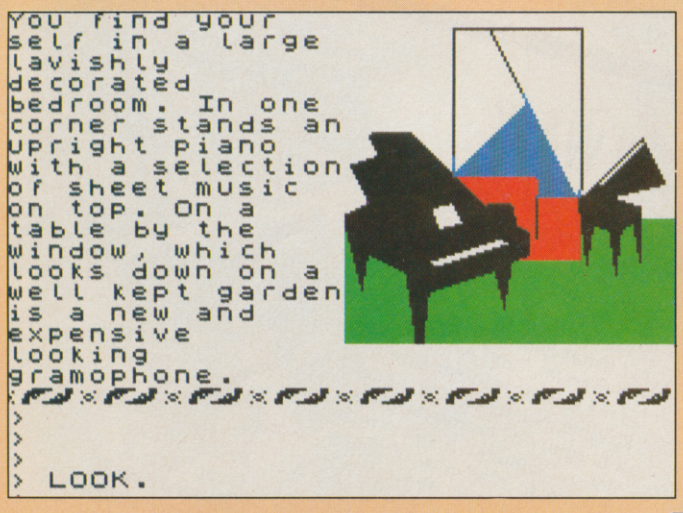
There was a long pause. Downstairs, there was a thunder of crockery as Mrs Hudson, dead drunk as usual, fell over while bringing up our suppers.

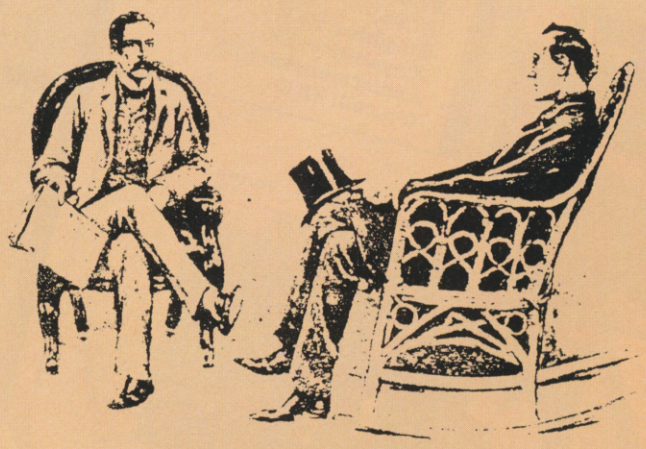
"Was that what the writer means by a crash?" I asked timidly, for Holmes was apparently in a trance.

"Eh? What? No!" replied my friend.

"Then what does he mean? And what is the other word digital?" But there was no reply from the Best and Wisest Man I Have Ever Known.

So after some minutes of silence I refilled my pipe from the Persian Slipper and sat down at the desk to compose a letter to my solicitor. — **Conan Doyle.**





"Holmes eyed me with a measure of impatience."

LOVE THAT BIN

TRASHMAN/SPECTRUM 48K*

Now humping a dustbin up and down the road may well be fun but it's not really what we've come to expect from New Gen is it? I mean, just where are the dinosaurs? I've scoured the streets and ransacked the gardens but have yet to find a single one. Highly disappointing. A Malcom Evans game without dinosaurs is simply not on.

Visually *Trashman* the most resplendant offering yet from the Evans pen. The scrolling townscape in which the dinosaur hides is breathtaking, with quite astounding attention paid to detail. Herbaceous borders are painted a delicate mottled green and a variety of vehicles litter the road. It's real state of the art landscaping.

Your task as the Trashman is to empty all the bins from a specified area before your bonus points reach zero. This is surprisingly hard as tramping across gardens is frowned upon by the points department and dogs weaned on nether regions lurk in the shadows. Seasoned Trashmen can earn bonus points by humouring creatinous residents and taking sustenance in the local hostelry, although this is not to be overdone. It's all highly original stuff. If only I could find that dinosaur . . . — **S.K.**

*(*CBM 64 version available through Quicksilva.)*

Maker: NEW GENERATION SOFTWARE
Format: cassette
Price: £6.95 (CBM 64 — £7.95)
Graphics: KKK
Playability: KK
Addictiveness: KKK
Overall: KKK

BLADERS OF THE LOST TRENCH

BLADE ALLEY/ SPECTRUM 48K

Another day, another trench. Settling into the Interceptor's cockpit you glance confidently around. The Kempston looks somewhat incongruous sellotaped to the flight deck but you clasp it anyway. Suddenly a roar of anger fills the launch bay and your Ion Drives begin to bleed. Ahead in the valley wait the Ties and the Saucers . . .

So begins a commendable but flawed attempt to rewrite *Buck Rogers and the Planet of Zoom*. Flawed? 'Fraid so. There's a couple of niggling game details which persistently spoil the action. F'rinstance, while you and the enemy scud smoothly across the screen blasting away at each other the scrolling backdrop looks decidedly hesitant. It doesn't seem to know where it's going. The Photon Disruptors are also suspect — a successful shot seems to depend more on the relative size of the two conflicting ships rather than any real space-jock accuracy. Try as you might, nothing is ever picked off on the horizon. Killer Kane, Buck Rogers' nemesis, best summed it all up with that celebrated line: "There's nowt in them pants save radishes!" The media clearly owe him a great debt. **S.K.**

Maker: PSS
Format: cassette
Price: £5.95
Graphics: KK
Playability: KK
Addictiveness: KK
Overall: KK

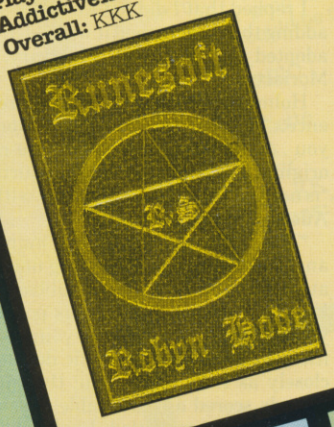
A JOLIE GODE GAYME

ROBYN HODE/ SPECTRUM 48K

Runesoft stalwarts Slack and Stevenson have made great efforts to keep *Robyn Mode* as authentic as possible. All the locations (in this mammoth text adventure) actually existed back in the 13th century, and background info has been culled from such literary sources as Nottingham City Library, Nottingham Castle, the Robin Hood Society and The Doomsday Book. The upshot of all this research appears to be an abundance of extemely odd spellings. These adde considerablie to the mediaeval atmosphere and so compensate for the lacke of an evocative narrative.

I've been giving it a good old thrashing the past couple of weeks but as yet the Sherryffe of Notyingham has little to fear from this particular Hooded Man. I'm still looking for a way out of the forest! Still things will doubtless improve. One day a crib-sheet will arrive in the post and thus inspired I'll stagger into the city of Notyingham, find the secret caves which lead to the castle and (gasp) go on to rescue Maid Marion. Mead and venison will then duly flow. — **S.K.**

Maker: RUNSOFT
Format: cassette
Price: £9.95
Graphics: N/A
Playability: KK
Addictiveness: KKK
Overall: KKK



SILLY WALK

THE QUEST FOR THE HOLY GRAIL/ SPECTRUM 48K

Hugely unfunny text 'n' graphics adventure that wants desperately to be zany. "It's 932 AD (After Dinner)," proclaims the manual, "and Arthur, King of the Britons is looking for his Knights. No, there hasn't been a burglary of the Royal Chess Set. . . " Splutter. It's your misfortune to play one of these missing knights, the not-so-amusingly named Sir Tappin the Basic. Your task is to track down the Holy Grail, a quest inherited no doubt from Sir Python of Olde. Author Chris Newcombe is clearly a fan as there's a gamut of swipes on offer, from carnivorous white rabbits to the Knights Who Say Nic (and other similar oaths).

While the quest is quite playable you'll need a strong stomach to suffer such witty retorts as "Take what? Berk!!!" and "A French guard unclogs his nose in your direction. You die a horrible green death!" Laugh? I didn't start. — **S.K.**

Maker: DREAM SOFTWARE
Format: cassette
Price: £6.95
Graphics: K
Playability: K
Addictiveness: KK
Overall: K

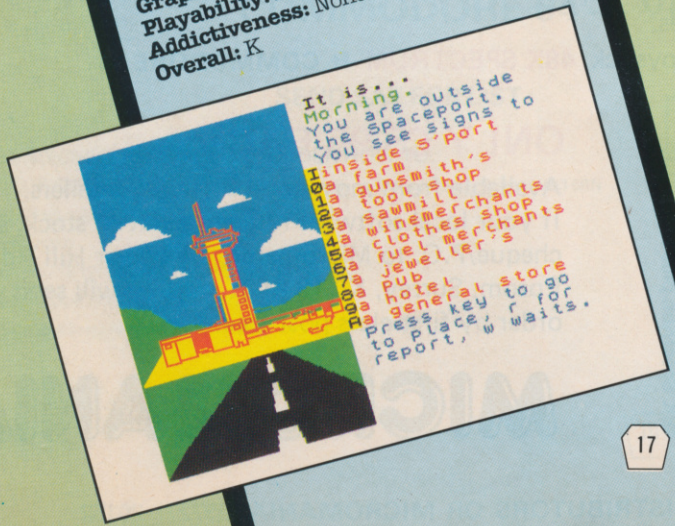
STAR BORES DON'T SCORE

STAR TRADER/ SPECTRUM 48K

SF trading simulation that promises a great deal and then promptly falls flat on its face. As is the norm in these things you must ply stated trade routes with well chosen cargo. Selling at a profit when possible, and minimising losses when not. The cargo is bought at the local Spaceport (nice graphic) from a band of traders whom we'll presume are related. While stocking up you're given an option on pirate attack en route. Naturally you buy it. Things then go downhill. The screen display chages as you enter deep space and more often than not the Pirates attack. With a new laser on board you jump at the battle-option- only to find the gun is next to useless. The response time is appalling! Naturally the Pirates clean you out.

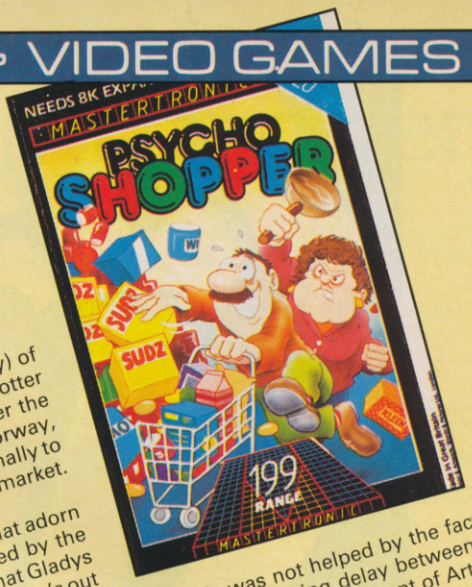
The next bummer comes when you land on the new planet. It's exactly the same as the one you've just left! You're back at a space-port (same graphic) bartering with the local traders who once again look related. Hardly worth the journey. At least with the old Trader trilogy from Pixel you got to meet a few amor-phous blobs and alien dudes. Not so here. Invariably I sold my cargo off at a loss and then pegged out through boredom. Well, it was the most exciting option on offer. — **S.K.**

Maker: BUG-BYTE
Format: cassette
Price: £6.95
Graphics: K
Playability: K
Addictiveness: None
Overall: K



PENSIONER NICKED IN SHOPLIFTING PURGE

PSYCHO SHOPPER/ VIC 20



This is the sad tale (well, it is when I play) of old Arthur, and his many attempts to potter to the shops. Guide the old codger over the double zebra, across the six lane motorway, over the high speed train tracks, and finally to screen four and Nirvana — the supermarket. What else.

As you make grabs for the coins that adorn the pavements (probably overlooked by the last batch of muggers) remember that Gladys — gran fatale — lurks amid-screens. She's out to get our man — and you wouldn't want a squashed Arthur on your conscience (or your carpet), would you?

I have a hunch that if the grey panthers ever got their dentures into this little number, Mastertronic would never see retirement. Shake not those silver locks at me — I didn't write it! But I did have fun playing it.

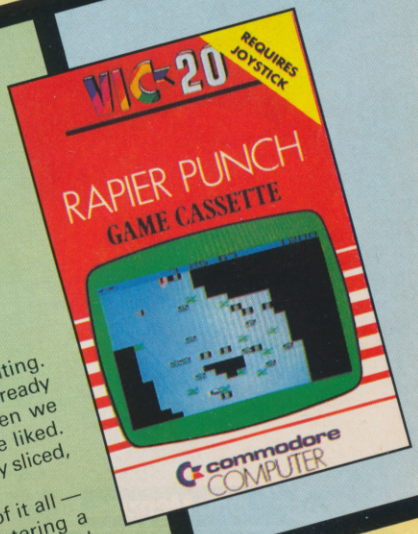
The graphics are rather smart, especially for the short memory of the VIC, and at the low budget price. *Psycho Shopper* has plenty of Pzazz, but never let an off-the-wall idea fool you — it's difficult to accomplish. You really have to hare it to avoid that traffic.

This was not helped by the fact that there was an annoying delay between movement of joystick and movement of Arthur. If this is a result of age — there sure ain't no flies on Gladys! I don't know what old people are coming to these days. — **N.X.**

Maker: MASTERTRONIC
Format: cassette
Price: £1.99
Graphics: KK
Playability: KK
Addictiveness: K
Overall: KK

PARDON ME WHILE I BUCKLE MY SWASH

RAPIER PUNCH/ VIC 20



It's back to the romantic era of swordfighting. Those wonderous days when men came ready canned, (but with no labels), and when we ladies threw our hankies at people we liked. (Yuck!) Days when you got romantically sliced, rather than shot to death.

But let us not harp on the magic of it all — the game must go on! You are entering a darkened room with your trusty steel and dagger. The darkness recedes from your torch, as you foray on for the treasure chest. Your beam will also reveal myriad baddies — dragons and spinning crosses. You may only prang them with your rapier whilst an intermittant tone is playing, otherwise press fire to throw your dagger, or you'll be laughing on the other side of your vizor.

This could be a really good game, but it is ruined by wishy-washy graphics. There just isn't enough meat on the bare bones of the concept to keep me grawing instead of ignoring. If it was a first draft, I'd say it had potential. But it isn't and it doesn't. — **N.X.**

Maker: COMMODORE
Format: cassette
Price: £4.99
Graphics: Graphics: Ughh!
Playability: K
Addictiveness: K
Overall: K

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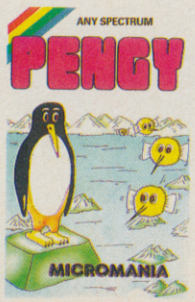

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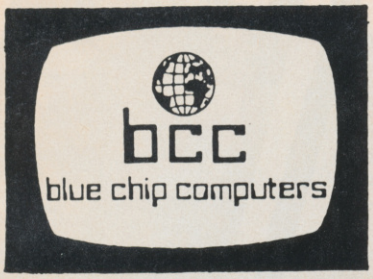

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USEFUL

CHARACTER GENERATOR/ SPECTRUM 48K

Useful little package from those awfully nice *Scope* people that enables you painlessly to design UDGs as either graphic symbols or lettering sets. The advantages of a new character are of course modest but they'll certainly add some of that elusive professional polish to your BASIC progs, particularly Adventures. Surprisingly impressive onscreen effects can be created simply by alternating between the new character set and the built-in one. A couple of POKES are all that's required.

Six pre-defined sets (love the Algerian) come ready to use so tired listings can be revamped immediately and as you might imagine it's compatible with Big Daddy *Scope* as well as other machine code software. I jazzed up a *Quill* game with it to great effect. Worth checking out even if it is priced a quid or so over the odds. —**S.K.**

Maker: ISP MARKETING
Format: cassette
Price: £17.95
Graphics: Make 'em yourself
Playability: Not really
Addictiveness: Pah! This is hard work
Overall: KKK

Be A McVid Kid

McVID/BBC

There are as many sprite draw routines and utilities for the BBC around now as there are leaves on trees. They even come free with magazines so it's nice to see that someone has gone to some trouble to provide a really worthwhile piece of software that does more than just let you shift aliens around the screen. *McVid* does, and is, a great deal more than that. Firstly it covers not only sprites but machine code line drawing — which isn't that hard but seems to be notably devoid of attention in books and magazines — and screen scrolling. Secondly it lets you do it in ANY graphics mode, even Mode 0, which is something none of the others even consider. Finally the reason why it rises head and shoulders above the rest is it's accessibility. These are not utilities but machine code routines. A source listing is provided so you can adapt them to your own needs — trim them down, expand on them and whack them into your programmes.

If you can produce fast, smooth graphics in one of the high-res screens you're going to impress people. The reason why mnost games are written in Mode 2 rather than any other is not, as a lot of people who should know better try to tell you, because there are more colours but because it's easier. In Mode 2 each byte holds information on only two pixels. Reasonably smooth animation can be achieved by whopping your shape two pixels at a time into the next byte. Hi-res modes are another matter altogether. Each byte holds either four or eight pixels depending on the resolution so you have to get into rolling bytes in and out of each other. Even if your assembler isn't too hot (although you'll need a bit) you can use these routines without really understanding them.

The line drawing is nice. A little slower than some I've seen, but they do include fairly fast rotate and scale routines. The rotation uses a look-up table for COS and SIN values so it's probably as fast as you'll get and the line draw is an incremental method so it only needs one division at the beginning of the draw.

McVid is a very nice little package, especially if you want to know more about machine code graphics techniques. Even if you don't it's useful to have around just to speed things up a little. —**K.A.**

Maker: PRO-SUPPLY LT
Format: cassette/disc
Price: £14.95/£15.95 d
Graphics: KKK
Playability: N/A
Addictiveness: KKK
Overall: KKK

No Thanks, Mrs Yanouk

ICE HUNTER/CBM 64

The good thing about being an Eskimo, it would seem, is that, um, there isn't a good thing about being an Eskimo. The bad thing, on the other hand is that it's cold enough to enccurage a pretty hefty trade in spare parts for brass monkeys.

The cover depicts a passably dashing Eskimo about to sink a harpoon into the back of a cross-eyed walrus. One or the other of these is 'Thorak, Prince of Ice. Probably the walrus.

Once you get past all the garbage they've covered the package with you're left with that old standby the ladders and platforms game. Not only that the elegant 'Prince of Ice' from the cover materialises on the screen with as much dash as a dead sheep and with a conk like an anteater. Don't get me wrong, it's quite a fun game. It's just that the graphics are a little, shall we say, unimaginative and the sound does little more than belch occasionally.

Anyway, insted of ladders there's icicles to slide up (??) and down between shelves of ice and thin patches of ice, which can only be trodden on once, dotted about the place. The idea is to collect blocks of ice, dropping them through the levels to the river below, while avoiding dragons (on the polar icecap?), birds and sealions. These wee beasties can be brained with ice blocks dropped from above or rendered harmless for a while by eating pills that appear from time to time. Once a few blocks have been dumped in the river you can hop onto them and float away, not to an island paradise but to Thorak's igloo, and collect bonus points. And that, folks, is all there is to it. —**K.A.**

Maker: ANIROG
Format: cassette
Price: £6.95
Graphics: K
Playability: KK
Addictiveness: KK
Overall: K

YOU CANNOT BE SERIOUS

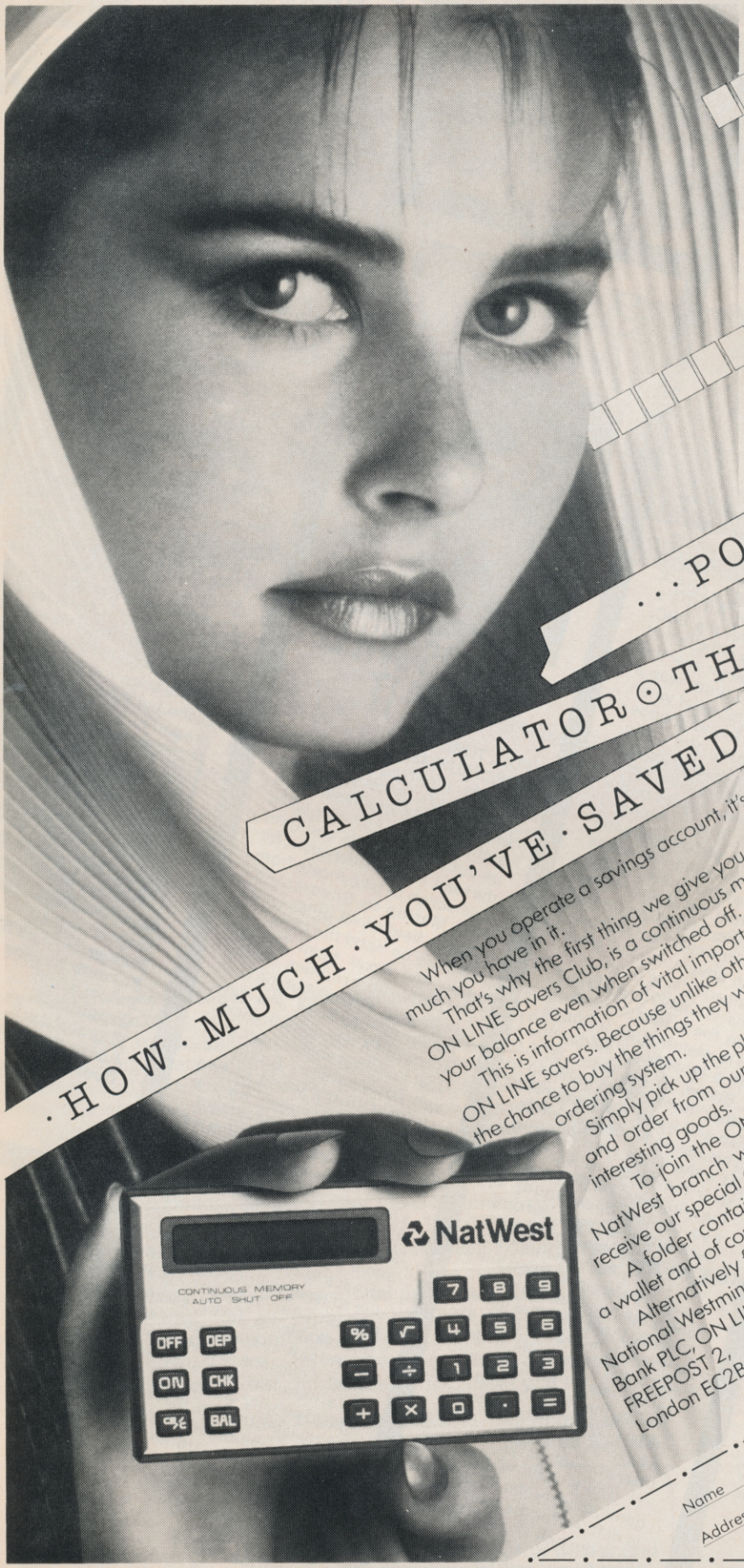
WIMBLEDON 64/CBM 64

Wimbledon, is way behind us now but tennis is always a popular spectator sport. So it's hardly surprising that a version for the Commodore has surfaced. It ain't gonna turn ya into no McEnroe — for a start there's no linesman to scream at — but even so it gives you a chance to whack at the ball in a passable impersonation of the real thing. And it loads as fast as hell.

The view is full 3D, from one end of the court and — this is the only bad point in a good game — requires two players. It seems fairly pointless having a game like this if you can't brush up your play against the computer.

After a while, when you get used to the thing, it's quite subtle. Forehand, backhand, smashes and lobs are all possible and control of power is simply a matter of how long you hold down the fire button before hitting the ball. A passable imitation of a spin is possible by moving the joystick while the ball is in flight but best of all the weather is always good. You can tell the sun's out because the ball casts a shadow. —**K.A.**

Maker: MERLIN SOFTWARE
Format: cassette/disc
Price: £7.95/£9.95 disc
Graphics: KKK
Playability: KK
Addictiveness: KK
Overall: KK



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LISTEN TO THE SERPENT

QUEST FOR THE GARDEN OF EDEN/CBM 64

Hang this man. By his tongue. Phoenix specialise in this sort of thing — an arcade and an adventure on the same tape; no adventure until you fetch a code from the end of the arcade game. The chances of lasting more than five seconds of the arcade are roughly on a par with the life expectancy of a polar bear in a volcano.

Their last little gem, *Attack on Windscale* for Auntie's favourite machine, the BBC, was so hideously difficult that the adventure never saw the light of day, so there was a certain feeling of relief when a packet was found suppos-edly containing the code. 'Open only in dire emer-gency', it said. 'Cause I'm a good boy, always goes by the book, that sort of thing, I opened the packet while the game was loading. Inside was a copy of the instructions (useful that, saves all the fuss and bother of looking on the back of the case) but no code for the adventure. So, crack that arcade game boys.

This is totally impossible. When the screen comes up you're standing on a bridge with a large black spider on it. Below, in the water is a rather ill-mannered gobbing fish and a bee in the middle. This has to be dodged while at the same time jumping over the spider as it patrols the bridge and keeping a wary eye on the bee should it decide that a good parking place for its sting might be your butt. Meanwhile you have to pick bricks from a pile and drop them into the water. The real problem in this game is the fish. It always gobs at you and it always hits. In one game I lost all my lives liter-ally as the screen came up (total playing time 3 seconds) which strikes me as more than a bit unfair.

I don't mind a difficult game, even prefer it, but this is daft. As for the adventure, how the hell should I know? — K.A.

Maker: PHOENIX
Format: cassette
Price: £6.99
Graphics: KK
Playability: ??
Addictiveness: 0
Overall: K

KNOWING YOUR PYRITES

MAZE GOLD/VIC20

Neato maze roustabout for the generally dense VIC. Like most good V20 games the idea is intrinsically simple. Just grab as much gold as you can and then do a runner. Trying to foil you is a rather bland blue fiend capable of quite a pace. Luckily he's a little stupid (well he is unexpanded) but things soon hot up as you stash more and more cash. To complicate mat-ters the maze is peppered with random electricity pylons which must also be avoided. Like the keyboard option they're bad news when touched.

There are six skill levels to master and you can entertain up to six monsters at a time. My limit was three and that was only achieved after much cuss-ing. One of the better new progs for the 64's geriatric great-uncle. — S.K.

Maker: VISIONS
Format: cassette
Price: £5.95
Graphics: KK
Playability: KK
Addictiveness: KK
Overall: KK

BIKERS WILL LIKE IT

FULL THROTTLE/ SPECTRUM 48K

Totally amazing sequel to Micromega's good-at-the-time bike race, *Deathchase*. Here author Mervyn Estcourt takes us out of the woods and onto the road, *Pole Position*-style, for a selection of bike-meets from San Marino to Silverstone. With a field of 40 other com-petitors on hand the competi-tion has never been fiercer. Initially the graphics might seem a little bland, but the ani-mation of the bikes and per-spective FX are quite brilliant. Just lean that sucker over and see for yourself! Being no stranger to the world of two wheels I can vouch for the authenticity of the movement.

There's a couple of nice extras for hesitant rebels, like a learners' practice mode (vital if you wanna make an impres-sion on the rest of the field) and a variety of tough 'n' easy tarmacs to test. We were also due to have gear changes but Micromega thought that unworkable. A lucky escape methinks. It's also accident free! Collisions merely result in a harmless (but annoying) speed penalty. Safety first, eh? Be advised, though, that a taut 'stick is needed for prolonged rides. The keyboard layout is quite unmanageable. — S.K.

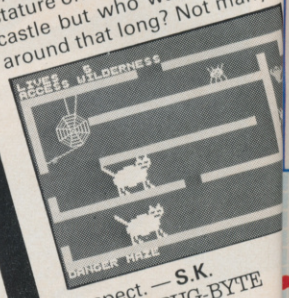
Maker: MICROMEGA
Format: cassette
Price: £6.95
Graphics: KK
Playability: KKK
Addictiveness: KKK
Overall: KKK

PASS THE FLIT

RAPSCALLION/ SPECTRUM 48K

Decidedly lightweight 'ani-mated adventure' from the home of Boris the Bee. Rap-scallion, the ugly rogue, had usurped your kingdom and incarcerated you within his dungeons. All seems lost until a passing fairy princess bestows the gift of transmuta-tion upon you (as is their wont). Suddenly strange powers course through your veins. With barely a thought you can become an eagle or a fly. Revenge will be yours! With a dull pop you take the guise of a bluebottle and, er, fly.

There are three areas of play, the Wilderness, the Magic Lab-yrinth and the Castle, and each comprises several screens. However this large pitch seems to have been turfed at the expense of such old fashioned values as sound 'n' vision. The graphics in particular are exceptionally crude. Real Legoland stuff. Obstacles are equally limp (frogs to eat the fly!) It's possible they grow in stature once you penetrate the castle but who wants to stick around that long? Not many, I suspect. — S.K.



Maker: BUG-BYTE
Format: cassette
Price: £6.95
Graphics: K
Playability: K
Addictiveness: K
Overall: K

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NO SCORE

Commodore Basic is not great. In fact let's be quite blunt. It's bloody awful. There are a number of ways around this — extend it, install another Basic, etc. Another option, especially if you're into games, is a games designer. *Scope* is just such a beast.

The Bible-sized pack that it comes in makes great claims for itself: easy to use; powerful, write and publish games using simple English commands, beginner and competent programmer alike . . . and so it goes on. So where does that leave the prospective games crafter? First of all if you don't know the machine you're going to have problems. Scope is a compiled language, so it has to have space for writing and space in which to be compiled. If you compile it in the middle of young Sidney, the sound chip, anything could happen. Secondly it's primitive. Sure enough it makes life easier for sprites and sound but the way it handles variables and functions is hideous. No more than 52 single byte integers and 26 double byte integers. This may well be adequate for most purposes but the variable names can be only a single letter. This is true for line labels as well. The thought of coming back to a complicated piece of coding after a few months and trying to decipher something like that is frightening. If you're doing something complicated then it must be easy to follow. A subroutine called 'A' is not that by any standard.

Anyone who knows the 64 well enough to use Scope would be better off buying a good assembler. After all the Peeks and Pokes of Basic, assembly language is a doddle and of a much more general use than something as machine-specific as Scope. — **K.A.**

Game: SCOPE 64
Maker: ISP
Machine: COMMODORE 64
Format: cassette
Price: £17.95
Rating: K

BORN AGAIN

CHECKOUT/ BBC 'B'

In the corner of my room I've got a stack of Virgin games. Every so often I glance in that direction and have a good giggle.

But there's an exception to every rule, and *Checkout* seems to be it.

The game gets its name from its star, young Checkout Charlie. He's a rather seedy looking character with short legs and dark glasses. The reason for the glasses is easy to see; the colours are blinding and have a nasty habit of flashing like a traffic light having a fit when something good happens.

Chas's mission in life, for reasons best known to him, is to change the colour of the floor in his room — twice, square by square. Running over a square a third tiome causes the square to revert to its original colour and has to be run over twice more.

Death — obligatory in games of this kind — is dealt by a remote robot which patrols the edges of the room. At regular intervals, when the egg timer at the edge of the room runs out, this heap of scrap metal lets loose with a laser blast. If Charlie gets in the way he farts gently and fades from the screen. What a way to go. Good stuff. From Virgin, too. Keep an eye out for flying pigs. — **K.A.**

Maker: VIRGIN GAMES
Format: cassette
Price: £7.95
Graphics: KK
Playability: KK
Addiction: KK
Overall: KK

SPLAT/CBM 64

And it does splat, too. Very nicely, thank you. Someone out there has a real morbid sense of humour. When zippy, the character involved, gets squashed, he spurts his inner organs everywhere. The idea is to move him around (he looks like a berserk beetle). picking up things — no idea what they are, we're told — scattered around a maze. This is no ordinary maze, though, it slides around, it's big and God help Zippy if he gets trapped between a maze wall and the edge of the screen. The only thing that's going to shift him is a shovel and lots of soapy water.

Splat is a fine example of a simple idea applied well with an imaginative use of graphics. After all these *Q-Bert*, *Frogger* and God knows what look-alikes it makes a change to see something with a spark of originality to it. Perhaps if it does well they can afford to give some instructions with it. — **K.A.**

Game: SPLAT
Maker: INCENTIVE
Machine: COMMODORE 64
Format: cassette
Price: £6.50
Rating: KK

WORSE THINGS HAPPEN/SPECTRUM

Neatly drawn nautical nonsense in which you must try and stem a thousand leaks on board on ailing ocean liner in order to guide it into port. The ship consists of about a dozen compartments, all of which begin to fountain like mad as you trundle frantically about on your rounds. Once sealed, these segments can be pumped dry in order to keep the tub afloat. Unfortunately sealing plates are in rather short supply and the little sea-droid who does all the work has a tendency to rust up and croak when exposed to salt water. Sailors will have a constant battle against the rising tide on their hands. Personally I believe it *Canute* be done *(you're fired — Ed.)* Visually it's the most impressive thing yet put by Silversoft and the challenge quota is considerably high.

Game: WORSE THINGS HAPPEN AT SEA
Maker: SILVERSOFT **Machine:** SPECTRUM 48K
Format: cassette **Price:** £5.95 **Rating:** KKK

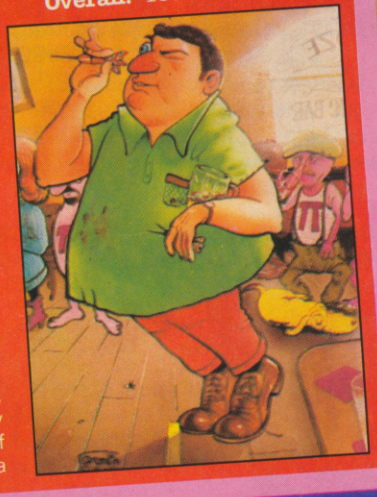
DARTZ/SPECTRUM 48K

Wonderfully authentic Darts simulation from those wacky Automata people. Now I'm certainly no player myself (the game-play is baffling!) but I can't help but appreciate the attention to detail employed here.

All the possibilities of a real match have been carefully woven into the play. Supping generously after each leg my player's alcohol content began to dramatically rise. Warning bells rung as my condition escalated from giggly to dizzy to tipsy. Indeed I got so sozzled that I could barely hold my darts. The game reached a bizarre climax when the tortured floorboards, unable to stand my vast girth any longer, collapsed with an undignified groan. Like I said, very authentic.

The presentation is first rate. There's a split screen display showing the score, the board along with a neatly animated cartoon graphic. If you miss the board or take a drink, the cartoon depicts your actions. Very stylish. Likewise the audio track on the flip. Smashing stuff I'd say. Hic. — **S.K.**

Maker: AUTOMATA
Format: cassette
Price: £5.00
Graphics: KKK
Addictiveness: KK
Playability: KK
Overall: "180!"



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TERLY GARSTLY

WARRIORS REVENGE/ SPECTRUM 48K

Stunningly inept text adventure apparently written by illiterate seven year olds for backward under fives. Yep, this is a real turkey. Infact it's SO BAD it's almost entertaining.

There's a certain perverse pleasure to be had wading through line after line of risible, pidgin english drivel! In what seems a courageous move for publishing freedom Video Force have taken the spelling-error factor to undreamt of lengths. Never have I seen so many errors grouped together in one place at one time. Having defeated a 'Moster from the bouls of hell' I found myself in 'an earie graveyard guarded by two zombies.' It's a good job I didn't stop to drink at the well as the water tastes 'tearable'. And don't think I'm giving you the highlights here! This awesome level of literacy is maintained throughout the game.

What's more the layout is sloppy (would you believe 'press "D" to die'?), the scenario totally unoriginal and the challenge level zero! Oh yeah, it's also written in BASIC. The thing is so duff it could well become a cult hit! How they have the cheek to threaten us with a sequel I'll never know! Horrendous. — **S.K.**

Maker: VIDEO FORCE
Format: cassette
Price: £5.95
Graphics: N/A
Playability: None
Addictiveness: None
Overall: Zippo

TRIFF

ENCOUNTER/CBM 64

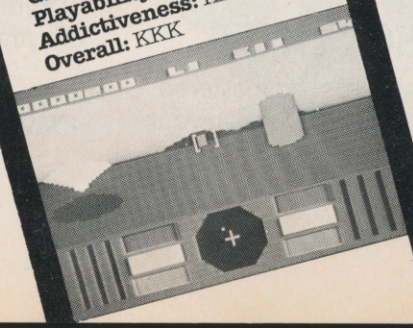
What the hell was that? Too late. Whatever it was it was big, faster than a rat up a drainpipe and packed a wallop like Ali with a brick in his glove. *Encounter* is a great game. Based on the old *Battlezone* where you take a view of 3D landscape through the front of a tank, instead of vector graphics like *Battlezone* this is in full solid graphics, four times as fast and unbelievably smooth.

The enemy, loosely described in the guff as a flying saucer, looks more like the ace of diamonds in the real thing. It works quite well, lending a certain surrealist feel to the game. The tank can be driven anywhere around the landscape, which is dotted with large cylindrical objects a bit like gas storage tanks. What they are is anybody's guess but if you fire at them your shots just bounce off. When you eventually manage to catch, and even more unlikely hit, one of the saucers it explodes impressively in a mass of fragments.

Access to each screen is a novel idea. Once one screen has been cleared a gaping hole appears. Take a deep breath, head straight into it and once inside all hell lets loose. Large globes roar towards you and you have to avoid them all before getting on the next screen.

We could do with a few more like this for the Commodore; good games are sadly lacking. — **K.A.**

Maker: NOVAGEN
Format: cassette/disc
Price: £9.95/£12.95 disc
Graphics: KKK
Playability: KK
Addictiveness: KKK
Overall: KKK



FLASH DASH FOR CASH

MURPHY/CBM 64

Who loves money? Altogether now 'WE DO', and Murphy in the best traditions of the human race in general, does too.

The setting is a deserted mine — not such an uncommon sight in these troubled times: the objective, get rich. Murphy potters sedately around the mine, which fills three screens, picking up bags of cash and defending himself from robbers, gently but persuasively, by burying pickaxes in their chests.

I like this, a simple idea and maybe not as original as some but fun just the same. As I said the idea is to run Murphy around the maze, which is basically an arrangement of slopes and ladders, picking up bags of money. The robbers are remarkably resilient, shrugging off the effects of major surgery a-la-pickaxe after only a few seconds, but you can also keep them occupied for a while by brainingthem with the money bags. On top of all this there are the runaway carts. Although these pack a pretty mean whollop, if your timing is right you can grab hold of the tunnel's cross members and drop into one as it passes under you.

Once that lot's sorted out it's down to the game proper. The bags have to be picked up one at a time and droped in the wheelbarrow at the top of the screen for full points. One of the bags is well and truly locked up. If anyone wants to know how to get it, cash only please to . . . — **K.A.**

Maker: MOGUL
Format: cassette
Price: £7.95
Graphics: KK
Playability: KKK
Addictiveness: KK
Overall: KK

SWINE BEFORE PEARLS

THE PINK PEARL/ SPECTRUM 48K

A pot pourri of adventure cliches in which you play a famous explorer intent on finding the fabulous Pink Pearl of Ttaroani.

As befits an adventure of very little brain, the game has been populated by all manner of standard 'venture denizens (trolls, werewolves, dragons, zzzzzz) and the objects and treasures gleefully dispensed with no feel for either coherence or sense. You're just as likely to find a grenade as the Holy Grail amonst the on-screen debris! What's worse the author has shown little regard to possible player input, resulting in 'I don't understand' messages with almost every keystroke.

It's also a piece of cake to play. I managed to visit almost half of the 180 locations in the first half hour and then promptly gave up after encountering sudden death for the umpteenth time.

In short this is a mess of not inconsiderable proportions, and consequently is a far from welcome advert for *The Quill*. — **S.K.**

Maker: ASTROSOFT
Format: cassette
Price: £5.95 approx.
Graphics: N/A
Playability: KK
Addictiveness: K
Overall: K

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You swear

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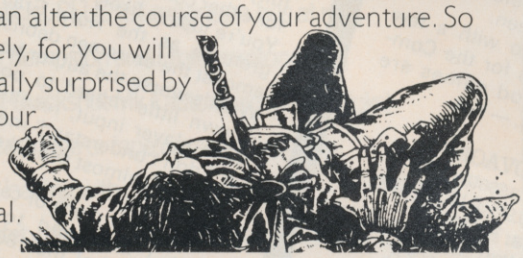

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When you entered the Kai monastery you were taught to fight with daggers, spears, warhammers, axes and swords.

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THE EQUIPMENT TO SURVIVE

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KK = Good-o
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STARBASE/VIC 20

I knew that space was tough, but in *Starbase*, the scientists get wiped out like flies! You are a lone patroller, guarding a cache of scientists, busy trying to colonise planet XA2 (I thought that was a camera — never mind).

The men of science are being attacked by allien space craft, and it's up to you to chuck 'em into the mighty void by showing them the big X with your laser cross wires.

The pin-men scientists scurry around like ants at the bottom of the screen. Screen top displays remaining numbers of scientists and alien craft. The hordes of the enemy pop out of the belly of the screen. And that's really all there is to say. Action is jerky and there are no frills. No other screens. No rewards. No change. In fact, if you should pause to think self from side to side of the screen; the answer can only be "to practice manual dexterity — you fool!" Think as it as a kind of piano practice for games-men. Commodore should know better. — **N.X.**

Maker: COMMODORE
Format: cassette
Price: £4.99
Graphics: K
Playability: Zilch
Addictiveness: K
Overall: K

KING TUT/DRAGON

Using the joystick you control a man who descends into tunnels to collect helmets which sit in various chambers. Return the helmets to the surface, one at a time, and points are yours. Return all five and a new set of tunnels faces you. Snakes parade the passages and a ghost can materialise anytime anywhere. Avoidance is your only means of defence and time is crucial. The quicker you achieve your task the greater the points tally. Take too long and the light goes out making it easy to blunder into a snake. Encountering a snake or ghost is fatal.

King Tut is a simple game, well executed with many attractive details. Animation is effective and when a helmet is collected it appears on the man's head but if he gets caught it is left at that point for collection later. Control response is excellent. Unfortunately, as with many Dragon games, the sound seems to be an afterthought and is typically awful.

There are safe locations where one can pause and reflect on the next move although of course time is ticking away. A 'freeze' facility isn't mentioned but pressing BREAK achieves this while ENTER continues the game. Remember — you read it first in BIG K!

All-action addicts may find it too repetitive or tame as there is nothing to shoot at. However, for a lover of strategy combined with risk it is an original and enjoyable game complete with fi screens and a score table

T.S.
Maker: TOM MIX SOFTWARE
Format: cassette
Price: £8.00
Graphics: KK
Playability: KKK
Addictiveness: KK
Overall: KK

KEYS HAVE THE GOLDEN TOUCH

TOUCHSTONE/DRAGON

Why is it that I am forced to use a joystick when one of the main selling points of the Dragon was that it had a proper keyboard? This game mainly involves vertical and horizontal movement plus firing a ray. For this you have to use a joystick but if you want to freeze or quit the game you need to stab the keyboard. Not only that, but an integral part of the game involves pressing the space-bar and then returning to the joystick. Not very sensible really, especially considering that the response to the joystick control can be sluggish at crucial moments.

This is a version of the arcade game where you make your way through a maze of tunnels collecting treasures while being chased by (or zapping) monsters which materialise in 'poof' chambers. Points are gained for collecting treasures and keys, opening doors and zapping monsters plus time bonuses. The attractive display screen scrolls very smoothly horizontally as you progress. For one or two players the screen shows both scores, the highest score, time allowance and lives left.

There is plenty to think about in this game and plenty to do with difficulty increasing automatically as you progress through the 20-odd screens of continuous harassment towards the ultimate goal of the touchstone. Many will find this game a challenge . . . I found it frustrating. Oh why couldn't everything be controlled from the keyboard? — **T.S.**

Maker: MICRODEAL
Format: cassette
Price: £8.00
Graphics: KK
Playability: K
Addictiveness: KK
Overall: KK

I THINK I JUST HEARD THE FIRST WALLY OF SPRING

WALLIE GOES TO RHYME-LAND/CBM 64

Raindrops keep falling . . . on poor little Wallie. And for once I don't care if he drowns. You said it, Interceptor. Wot a Wallie!

To get right up my nose, just hand me a game that makes you suffer through a long, daft and supposedly 'cute' routine every time you want to restart.

Naff slogans, too, will get you up there. 'Prepare to die' kind of rubs you up the wrong way after you've just been senselessly annihilated for the 987th time. And I really don't understand why games are still made to do this. Those first tentative efforts at a new game are so vital. It's then you decide either; a) "Aha! What scrotnig game! I shall do until I die." Or b) "Aha! A load of codswallop! I shall grind it into past with my stiletto!"

Thus driven into a frenzy, I was not fully receptive to Wallie's plight of being chased by odd-bods and hailed on with lethal pink rain. Anyway, he was an all-too self-consciously 'zany' little tyke who had already put my back up just by existing. Add to this, the landscape, one of those from the neolithic period of vid games — when the sky was one colour and the mountains stuck out crudely like a row of sore thumbs in colour b. Wallie lopes along with a simple right to left scroll. Redolent of the earlier castigated *Troopa Truck*, fleeing relies not so much on skilful manipulation, but on memorising where the pratfalls and assailants are. Give me Frankie Goes to Hollywood any day. — **N.X.**

Maker: INTERCEPTOR SOFTWARE
Format: cassette
Price: £6.95
Graphics: K
Playability: K
Addictiveness: Non
Overall: K

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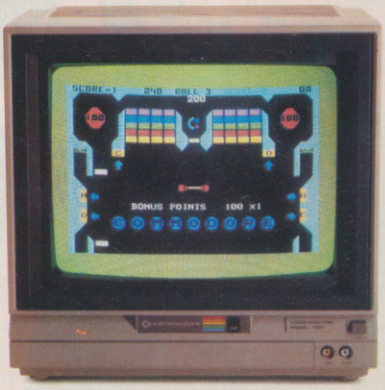

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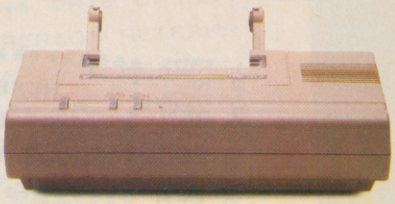

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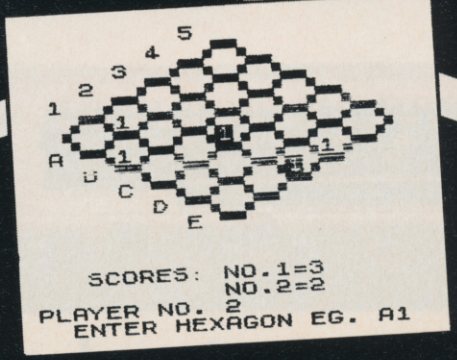
 3 REM *   HEXAGONAL    *
 4 REM *                *
 5 REM *      BY        *
 6 REM *                *
 7 REM *  J.WINCHESTER  *
 8 REM *                *
 9 REM ******************
10 SAVE "HE"
11 GOSUB 9600
15 FAST
45 LET C=0
47 CLS
50 PRINT AT 0,7;"H E X A G O N
A L"
51 PRINT AT 1,7;"
"
55 PRINT AT 2,5;"BY J.WINCHEST
ER 1984"
60 LET K=0
76 LET G$="1"
80 DIM C$(5,5)
85 FOR P=1 TO 5
90 LET C$(P)="00000"
95 NEXT P
100 DIM A$(5,5)
105 DIM B$(5,5)
110 LET B$(1)="24443"
115 LET B$(2)="46664"
120 LET B$(3)="46664"
125 LET B$(4)="46664"
130 LET B$(5)="24442"
135 FOR P=1 TO 5
140 LET A$(P)="00000"
145 NEXT P
146 LET P=10
147 LET O=5
148 LET KK=0
149 PRINT AT P,O;"  ";AT P+1,
O+1,"  ";AT P-1,O;"  "
150 LET P=P-1
151 LET O=O+2
152 LET KK=KK+1
153 IF KK<>5 THEN GOTO 149
154 LET K=K+1
155 LET P=P+6
157 LET O=O-8
160 IF K<>5 THEN GOTO 148
163 GOSUB 9500
173 LET P=10
175 LET O=6
176 LET X=1
177 LET Y=1
182 IF C$(X,Y)="1" THEN PRINT A
T P,O;A$(X,Y)
184 IF C$(X,Y)="0" THEN PRINT A
T P,O;" "
186 IF C$(X,Y)="2" THEN PRINT A
T P,O;CHR$ (128+CODE A$(X,Y))
190 GOTO 8000
200 GOSUB 9000
201 PRINT AT 18,6;"SCORES: NO.1
=";X5;" ";TAB 14;"NO.2=";Y5;"
TAB 3;"PLAYER NO. ";G$;TAB 5;"EN
TER HEXAGON EG. A1"
203 SLOW
204 INPUT Z$
205 LET X=CODE Z$(1)-37
206 LET C=C+1
210 LET Y=VAL Z$(2)
211 IF C$(X,Y)="2" AND G$="1" T
HEN GOTO 201
212 IF C$(X,Y)="1" AND G$="2" T
HEN GOTO 201
213 FAST
215 LET A$(X,Y)=STR$ (VAL A$(X,
Y)+1)
220 LET J=0
221 LET C$(X,Y)=G$
222 GOSUB 700
225 IF G$="1" THEN GOTO 235
230 LET G$="1"
231 GOTO 170
235 LET G$="2"
240 GOTO 170
700 LET J=J+1
701 FOR N=1 TO 5
705 FOR M=1 TO 5
710 IF VAL A$(N,M)>=VAL B$(N,M)
THEN GOTO 800
715 IF J=10 THEN GOSUB 9000
720 NEXT M
725 NEXT N
730 RETURN
800 IF N<>5 THEN LET A$(N+1,M)=
STR$ (VAL A$(N+1,M)+1)
801 IF N<>5 THEN LET C$(N+1,M)=
G$
805 IF N<>5 AND M<>1 THEN LET A
```

HEXAGONAL

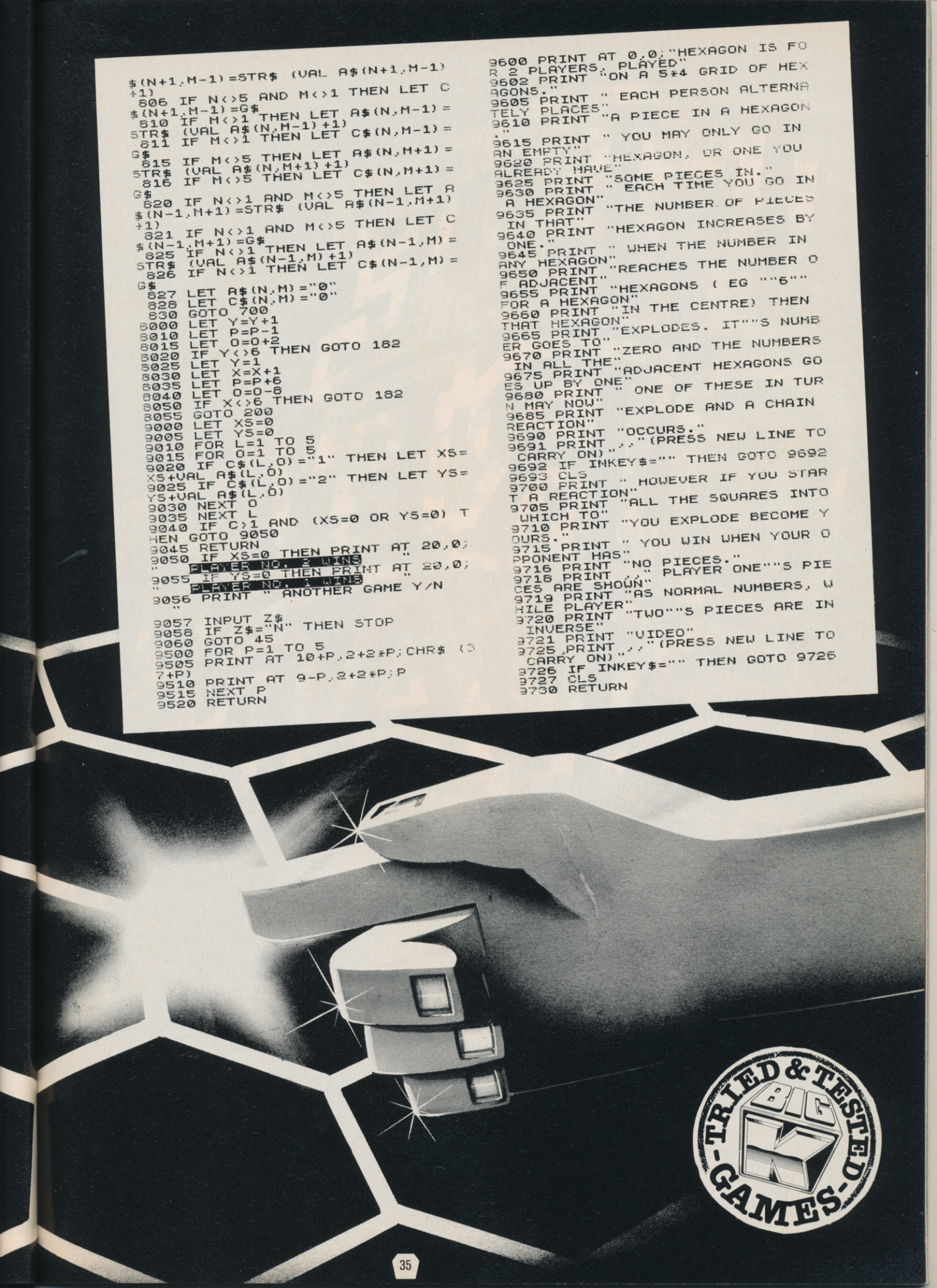
In this fiendish strategy board game simulation — with nuclear overtones — two players attempt to outmanoeuvre each other and avoid the CHAIN REACTION. Full instructions contained within the program.

For ZX81 By JOE WINCHESTER



```
$(N+1,M-1)=STR$ (VAL A$(N+1,M-1)
+1)
 806 IF N<>5 AND M<>1 THEN LET C
$(N+1,M-1)=G$
 810 IF M<>1 THEN LET A$(N,M-1) =
STR$ (VAL A$(N,M-1)+1)
 811 IF M<>1 THEN LET C$(N,M-1) =
G$
 815 IF M<>5 THEN LET A$(N,M+1) =
STR$ (VAL A$(N,M+1)+1)
 816 IF M<>5 THEN LET C$(N,M+1) =
G$
 820 IF N<>1 AND M<>5 THEN LET A
$(N-1,M+1)=STR$ (VAL A$(N-1,M+1)
+1)
 821 IF N<>1 AND M<>5 THEN LET C
$(N-1,M+1)=G$
 825 IF N<>1 THEN LET A$(N-1,M) =
STR$ (VAL A$(N-1,M)+1)
 826 IF N<>1 THEN LET C$(N-1,M) =
G$
 827 LET A$(N,M)="0"
 828 LET C$(N,M)="0"
 830 GOTO 700
8000 LET Y=Y+1
8010 LET P=P-1
8015 LET O=O+2
8020 IF Y<>6 THEN GOTO 182
8025 LET Y=1
8030 LET X=X+1
8035 LET P=P+6
8040 LET O=O-8
8050 IF X<>6 THEN GOTO 182
8055 GOTO 200
9000 LET XS=0
9005 LET YS=0
9010 FOR L=1 TO 5
9015 FOR O=1 TO 5
9020 IF C$(L,O)="1" THEN LET XS=
XS+VAL A$(L,O)
9025 IF C$(L,O)="2" THEN LET YS=
YS+VAL A$(L,O)
9030 NEXT O
9035 NEXT L
9040 IF C>1 AND (XS=0 OR YS=0) T
HEN GOTO 9050
9045 RETURN
9050 IF XS=0 THEN PRINT AT 20,0;
"     PLAYER NO. 2 WINS
9055 IF YS=0 THEN PRINT AT 20,0;
"     PLAYER NO. 1 WINS
9056 PRINT " ANOTHER GAME Y/N
"
9057 INPUT Z$
9058 IF Z$="N" THEN STOP
9060 GOTO 45
9500 FOR P=1 TO 5
9505 PRINT AT 10+P,2+2*P;CHR$ (3
7+P)
9510 PRINT AT 9-P,2+2*P;P
9515 NEXT P
9520 RETURN
```

```
9600 PRINT AT 0,0;"HEXAGON IS FO
R 2 PLAYERS, PLAYED"
9602 PRINT "ON A 5*4 GRID OF HEX
AGONS."
9605 PRINT " EACH PERSON ALTERNA
TELY PLACES"
9610 PRINT "A PIECE IN A HEXAGON
."
9615 PRINT " YOU MAY ONLY GO IN
AN EMPTY"
9620 PRINT "HEXAGON, OR ONE YOU
ALREADY HAVE"
9625 PRINT "SOME PIECES IN."
9630 PRINT " EACH TIME YOU GO IN
 A HEXAGON"
9635 PRINT "THE NUMBER OF PIECES
 IN THAT"
9640 PRINT "HEXAGON INCREASES BY
 ONE."
9645 PRINT " WHEN THE NUMBER IN
ANY HEXAGON"
9650 PRINT "REACHES THE NUMBER O
F ADJACENT"
9655 PRINT "HEXAGONS ( EG ""6""
FOR A HEXAGON"
9660 PRINT "IN THE CENTRE) THEN
THAT HEXAGON"
9665 PRINT "EXPLODES. IT""S NUMB
ER GOES TO"
9670 PRINT "ZERO AND THE NUMBERS
 IN ALL THE"
9675 PRINT "ADJACENT HEXAGONS GO
ES UP BY ONE"
9680 PRINT " ONE OF THESE IN TUR
N MAY NOW"
9685 PRINT "EXPLODE AND A CHAIN
REACTION"
9690 PRINT "OCCURS."
9691 PRINT ,,"(PRESS NEW LINE TO
 CARRY ON)"
9692 IF INKEY$="" THEN GOTO 9692
9693 CLS
9700 PRINT " HOWEVER IF YOU STAR
T A REACTION"
9705 PRINT "ALL THE SQUARES INTO
 WHICH TO"
9710 PRINT "YOU EXPLODE BECOME Y
OURS."
9715 PRINT " YOU WIN WHEN YOUR O
PPONENT HAS"
9716 PRINT "NO PIECES."
9718 PRINT ,," PLAYER ONE""S PIE
CES ARE SHOWN"
9719 PRINT "AS NORMAL NUMBERS, W
HILE PLAYER"
9720 PRINT "TWO""S PIECES ARE IN
 INVERSE"
9721 PRINT "VIDEO"
9725 PRINT ,,"(PRESS NEW LINE TO
 CARRY ON)"
9726 IF INKEY$="" THEN GOTO 9726
9727 CLS
9730 RETURN
```



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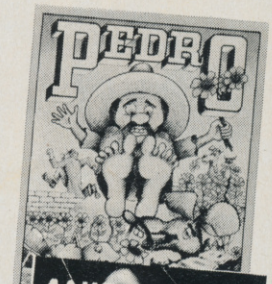

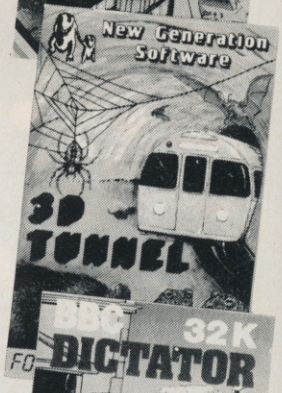

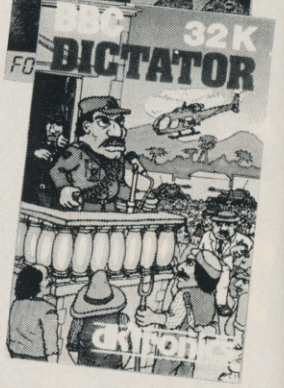

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Adventure

the next step . . .

IT WAS while Clive the Dorkslayer was checking out the fabled Chalice of Chalknor that the Basilisk came out of its cave, and smelling fresh blood, charged.

Clive the Dorkslayer, half-elf, half-man, stood up in alarm as the scaly beast made its clumsy, scurrying rush. Should be use the Axe Logslayer or the Sword Nerdslayer? Or the silver, enchanted knife Foodslayer? Or should he trust in the powers of the magic helmet Hairslayer? Ought he, perhaps, to check over his stamina points before engaging the animal in no-holds-barred combat? Might he not profit — even at this late stage — by a quick suss of his leather pack's contents?

Of course it might be that his best option would be to run for it.

At the penultimate instant before a ton of infuriated horn and bone landed on him, Clive the Dorkslayer decided that his strength was a little on the low side; he had actually half-unwrapped the cheese and onion sandwich before the behemoth, true to its fearsome reputation, had pounded him to a pale pink jelly.

Disgusted, Clive hauled the plug out of the back of his Spectrum, switched off the grimy Anglepoise lamp that illuminated his work area, and went to bed.

DVENTURE GAMES have traditionally taken fearless and outgoing individualists like Clive on voyages of discovery and sudden death through an antique land peopled by creatures from Grimms Brothers tales. There is almost always a Quest to achieve — often an object or objects of value to be acquired, sometimes a useful magic word to be learned — and gripping adventures can take several months, of not longer, to complete without resort to Help.

However almost any Boys' Own situation is, by its nature, tailor-made for the computer adventure format — this being generally defined as the kind of game where you achieve results, not by waggling a joystick in real-time, but by typing in words and phrases which, if understood by the game's built-in sentence parser, can be translated by the software into a result, a movement, a gain, perhaps a sudden demise. Here lies their attraction — this constant puzzle of trying to learn or guess what words are actually in the vocabulary, and then employing them at the right time, under the right circumstances, in the right combination and often in the right order (of events). Success at this means success at the adventure and the fulfilment of the Quest . . . and the hunt for a new game to buy.

These days the definition has become blurred, as both old and new techniques are applied in an attempt to broaden the technical definition and make the process more user-friendly and thus accessible to more people. Not all of us like crossword-like activity in the middle of the night ("Try KILL BOOT, fer Pete's sake, and let's get some kip!"). Not all of us are verbally facile. Not all of us have patience; and not all of us are loners — you need to have a taste for the latter to be a full-hearted adventure nut. So these days we have mainframe adventures playable by dozens of people at a time (none of whom knew each other); multiple-choice "adventures" like The Lords Of Midnight; multiple-player adventures like Empires; and to please the optically-inclined we of course have graphic adventures like The Hobbit and independent-life real-time graphic adventures like Valhalla.

Themes have changed, too. The sword 'n sorcery motif still rules, though no longer unchallenged. You can be inside a giant deserted alien spacecraft, at an Agatha Christie country house murder, aboard a doomed cruise ship, or trying to get out of Cricklewood. You can move through political circles or "attain" Hampstead.

There is very little left of "real life" that isn't already in the adventure planning sage.

At the same time, one of Adventure's parent roots — Dungeons and Dragons role playing games — is moving towards the new common core — with the new generation of adventure paperbacks, with or without attached computer games. Interactive literature is already a reality. The first of all computer games is still — for many — the best, the most enduring and the one with the greatest continued potential.

So even if you're an arcade nut with a habit that craves blood . . . read on. You may not get much joystick action but you'll discover all the gore you could possibly want . . .

Don't Look Now, But You'

IT HAPPENED on the witching hour 'neath the glow of a Trinitron tube. I felt a sense of alarm and a definite tightening of the skull. Whipping out a pocket mirror (always carried) I found myself confronted by what appeared to be a grinning potato. My stony visage had finally crumpled with pleasure. I'd stumbled upon one of those rare delights, a genuinely funny adventure. The thing was called *Spoof*, for the 48K Spectrum from Runesoft. I cackled hideously long into the night.

Spoof is a standard format text prog that parodies all those now familiar sword 'n' sorcery cliches. Anyone with a fondness for the genre can't help but raise a smile as they wander past rotting wooden signposts proclaiming, 'The Obligatory Mountian' and 'The Necessary Forest'! You take the guise of Yaw Ning (the tired one), a wretched peasant embroiled in a number of puzzling tasks. There's the shopkeeper who's really The Doctor (yes, him) in disguise — he needs a vital component for his time machine; Bulbo the enlightened lighthouse keeper who's after the legendary Golden Fleece (well it gets chilly out there on the rocks); the cheerful proprietor of The Bog Inn . . . I can't remember what he's after . . .

Still these tasks are of little import. The game's strength lies in its jokes and witty repartee. The telephone routine is a good example, and it doesn't give too much away! The scene takes place after a trudge across 'The Obligatory Mountain'. Imagine a telephone. It starts to ring . . .

Keaton: Um. Answer 'phone.

Spoof: "Hallo. Is that Dave?"

Keaton: "Um. No.

Spoof: "Can you get him for me? He'll probably be down on the beach. Shout him for me will you?"

Keaton: Um. Shout Dave.

Spoof: As I shout I see a figure on the beach. It waves to me and disappears into the cliff below. Moments later he arrives at the cliff-top singing about fish fingers or something. He stops singing and takes the 'phone from me. He puts the 'phone down. "I have to go to the lighthouse. Would you like to come?"

Keaton: Um. Yes.

Spoof: "Follow me," he says and then he disappears down the secret tunnel.

Keton: Um. Follow Dave . . .

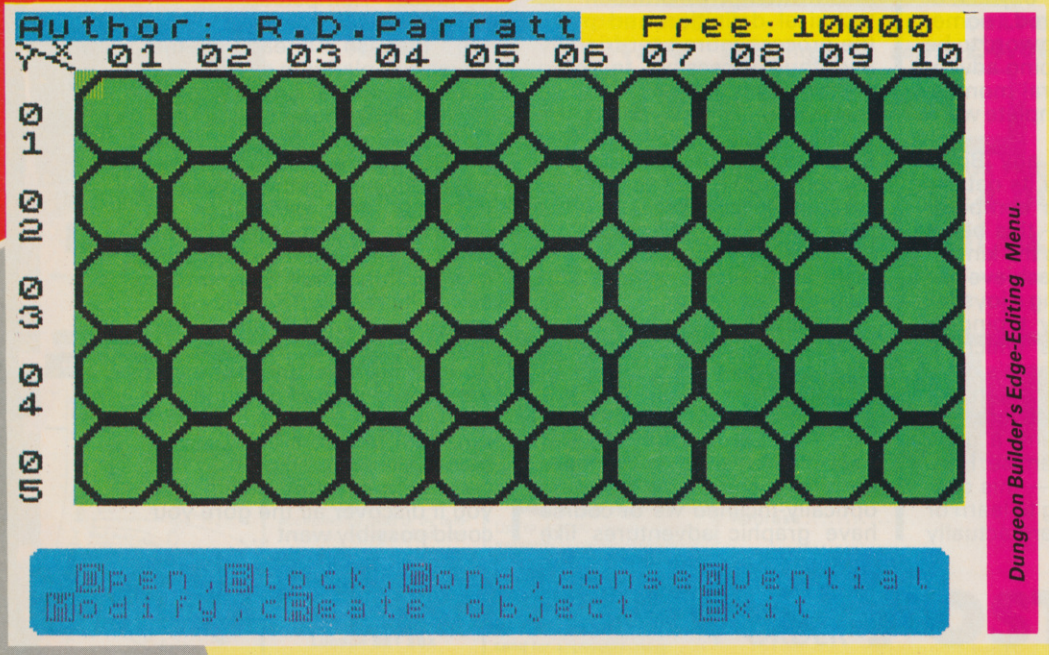
This quality of interaction is maintained throughout the game. Beautifully observed and precisely anticipated it's a real pleasure to play. Apparently authors Don Slack and Dave Stevenson conceived the idea after an altogether larger, more sombre project.

"We'd just finished this fully fledged heavy duty Dungeons and Dragons adventure," says Slack, "and thought that the whole genre could do with a send-up. We bounced some ideas around and decided on *Spoof*. Spoof the magic dragon! It sounded about right. I think it's a good idea to have a bit of variety on the adventure scene. There's plenty of room for parody."

Favourite

Both authors have their favourite sequences. "I like it all!" declares Stevenson with undue modesty. "No, I think the place names tickle me the most. They're so corny."

Slack is fond of the Owl and the Pussycat routine. "That whole section on the barge is really funny," he says. "I also like the double endings." He goes on to explain in detail and I suddenly realise that what I thought was an odd bug in the program is in fact all part of the joke! Slack and Stevenson are so pleased with the character of Yaw that he's slated to return at a later date. I for one will be waiting.

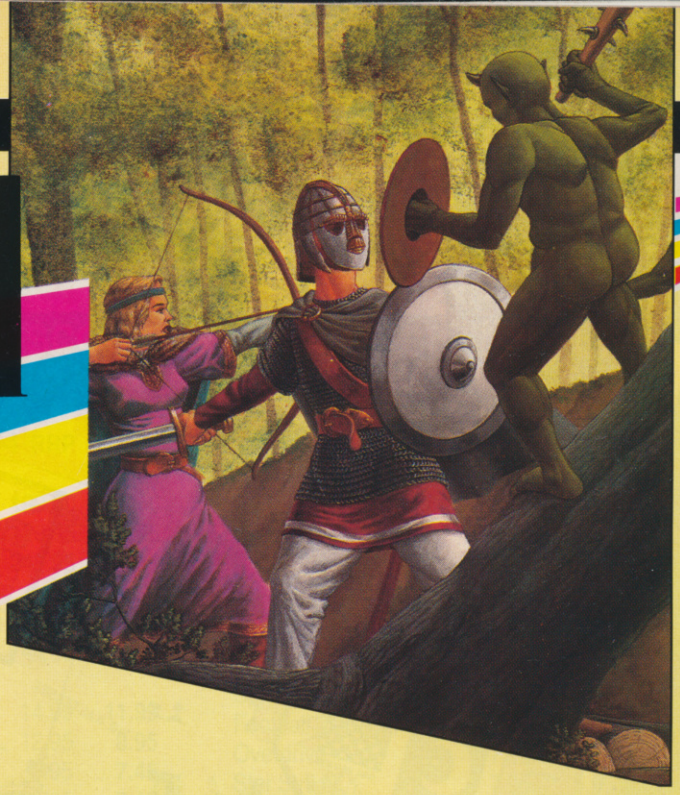


Dungeon Builder's Edge-Editing Menu.

Plunge In To This Dungeon

THE ALREADY obese Spectrum adventure market seems set to swell some more with the arrival of a neat new game generator from Dream Software. Like Gilsoft's highly rated *Quill* system *The Dungeon Builder* enables you to write your own machine-code adventures without any previous programming know-

u 've Been Had



ledge — but differs sharply in that it's designed to accommodate 4-colour graphics. Author Richard Parratt tells me that this has caused other publishing houses to show considerable interest. In fact (I'm told) Artic like the system so much they're using it to write their next batch of adventures.

Parratt based *TDB* on an earlier text interpreter written for a mainframe. It took approximately four months to comlete and as you might expect it's menu-driven. An Outer Menu leads to an Edge Editing Menu, where you can define your map, and this in turn leads to Centre Editing Menu and Object Editing Menu, where you can script the locations and place the objects. Three final menus, Verb, Position and Command then allow you to implement the machinery necesary to make your piece work.

Status

The main screen display is exceptionally clear. At the top is a status line indicating the amount of memory free for the game. Early issues of *TDB* offered around 10K of usable memory but mark 2 versions, identifiable by a fancy loading-screen, boast a more healthy 13.5K. Be sure to check before you buy. Below this is a lattice of octagonal cells which correspond to the directions N, NE, SE, S, SW, W, and NW. This is your map. You've a total of 1600 cells to play with and breaking the links between them creates adjoining locations. The accompanying manual takes you through the process step by step.

Below the grid is the Design Menu which can be accessed using a key letter. Hit 'O' for open on the Edge Editing Menu, f'rinstance, and you'll be able to bulldoze a path between the cells with your cursor. Hit 'D' for describe and you'll be able to type in a description for the cell your cursor happens to occupy at the time. Curiously you're only permitted to enter one upper case letter per sentence. This is due to *TDB*'s byte compression system. A worthwhile idiosyncrazy. Less tolerable though is the screen full of garbage that results from including a question mark in your descriptive text. When told of this elephantine bug the guys at Dream were suitably apologetic and promised to hold onto stocks until it had been exorcised. Owners of bugged Builders are advised to return to their cassettes (but not the expensive packaging) for replacement.

Having laid and scripted the game you're then required to establish conditions and consequences. This involves a modicum of intelligence and so temporarily baffled your humble scribe. An altogether inordinate amount of time was spent putting a door in one of the cell walls! I could open the blamed thing all right, but not close it, I never did find out what it was I was doing wrong.

Graphics

Adding the graphics is less confusing. You just punch the 'P' option on the Centre Editing Menu, select a background colour and manipulate the drawing cursors with your trusty cursor keys. Instant masterpiece!

Your adventure is then completed by loading the saved database into the 'Make' utility on the cassette's flip-side. The thing gulps down the info, swills it around and regorges it as a genuine stand-alone adventure. Unfortunately it comes complete with a truly hideous loading screen that proclaims in bold type that the game was created on 'The Dungeon Builder'. It even gives Dream's full address! Decidedly OTT. I put this gripe to Richard Parratt who was understandably defensive. "It's all part of the protection device," he said, "although we would be quite happy to remove it if we could come to some sort of arrangement for an alternative credit."

Hmmph. Perhaps some of you wizard readers know of a faster solution? This and the question mark bug apart I found the whole system very impressive. Response time on the finished product is perhaps a bit sluggish but the graphics facility more than compensates. It also helps you avoid the factory-farming effect of *The Quill*. A microdrive version and users club are promised soon.

OF COURSE some of you lot might actually prefer to write an Adventure the traditional way, with honest-to-goodness code. None of these nancy-boy generators for you! If such is the case then you'll probably be looking for a book to help you on your way. In which case the choice is dazzling! A plethora of softbacks litter the stands and all promise wonders beyond belief. Unfortunately most fail to deliver.

An exception is the rather poorly titled *Invent And Write Games For The Spectrum* written by Noel Williams and published by McGraw-Hill at £6.95. Although you'd be forgiven for passing over it (whoever thought of the monicker should be put to the blade) William's book is something of a gem. Everything you'll need to know is here and it's written with immense humour. Something of a rarity. The book contains history, help and two BASIC listings which once used can be easily cannibalised.

All in all a great read for DIY Dorkslayers.

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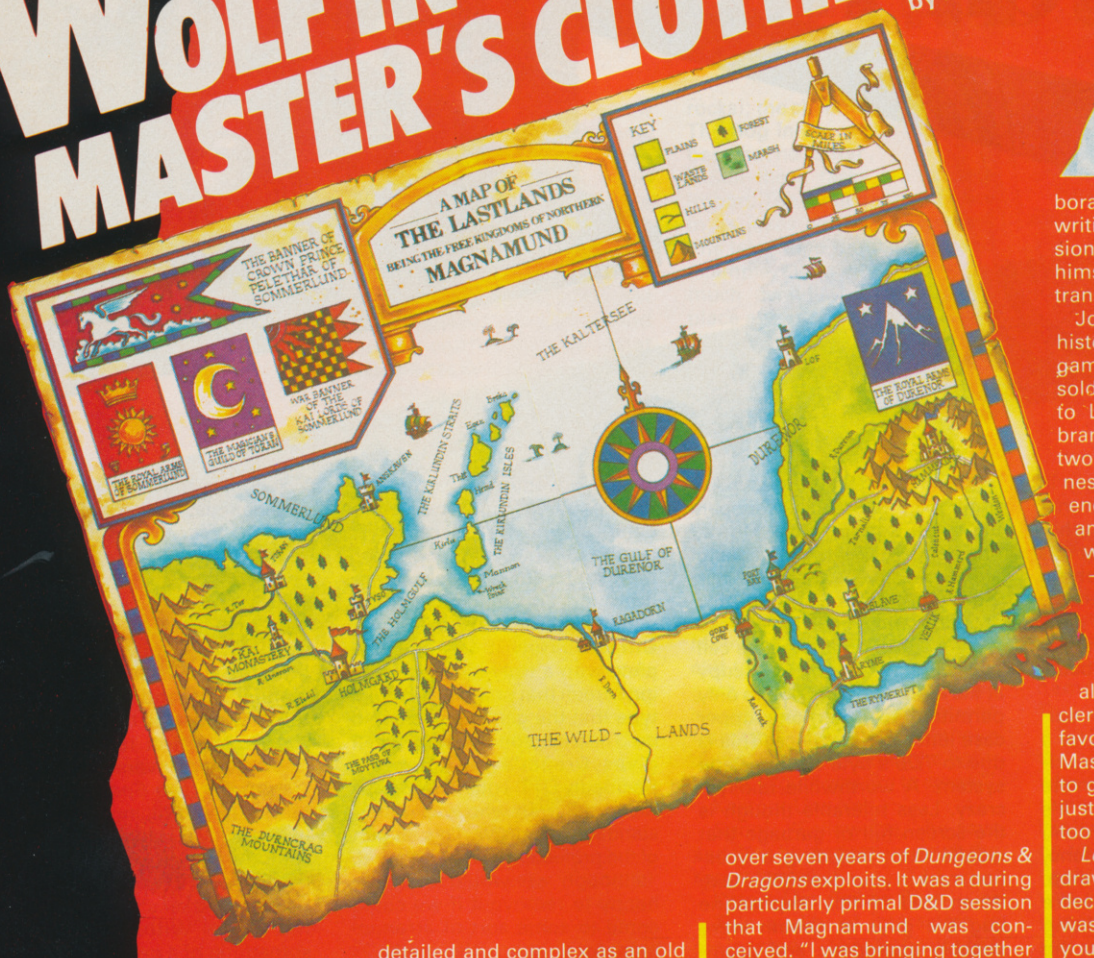
WOLF IN DUNGEON MASTER'S CLOTHING

by Nicky Xickluna



JOE DEVER, 1982's World *Dungeons & Dragons* Champion, has hit the Software Road. His *Flight from the Dark and Fire on the Water* began life as role-playing adventure books, and now meet their electronic foils — text adventures with graphic illustrations. The two titles comprise the first sixth of a mammoth adventure series, *Lone Wolf*. Each of the twelve episodes, published by Hutchinsons, will tie-in with an adventure book of the same name. Both can be played as self-contained units but rabid gamesters will be pleased to find it possible to cross-reference between the two for a really comprehensive game. Initially for Spectrum, the series is being translated for the Commodore 64, and, notably, will be among the first available for the QL.

BIG K was chosen to be the very first magazine to play *Flight from the Dark*. Each screen is as detailed and complex as an old manuscript with a graphics window and text area below. You choose from the courses of action scrolled in the lower half of the screen, and the characters animate themselves accordingly. The graphics are excellent, and the adventure pushes the Spectrum's 48K to the limits.

In the game you are Wolf, kin to the Kai Lords. One day the sky is darkened by the sickening, leathery-winged Darklords. When they leave, you find yourself the sole survivor of your ancient race — Lone Wolf.

Our hero is about 15 years old in *Flight from the Dark*. He grows older and wiser through the episodes. Later he will acquire the skill of Dimensionality; the ability to travel through time and space. He'll need all the skill he can get for the final conflict. Lone Wolf's vow of the revenge starts him on a quest that will take him all the way through the world of Magnamund.

Lone Wolf has been fermenting in the mind of Joe Dever over seven years of *Dungeons & Dragons* exploits. It was a during particularly primal D&D session that Magnamund was conceived. "I was bringing together amorphous gassy formations; great, floating worlds of ice . . . and other strange phenomena" (he wouldn't part with the exact recipe) — "and POW! Worlds combusted into being!" And Joe had created Magnamund. And he saw that it was good.

Joe's youthful, ethereal looks belie his maturity. His low-key self-assuredness kind of sneaks around the back and hits you.

Joe, 28, set out on life's rich path as a musician. He moved over from double-bass to electric bass and worked with a lot of bands including Mike Oldfield, "I enjoyed it all at first." Then he found himself hired out to sessions with the punk bands of 1977-8.

"Suddenly, music was about anything but virtuosity. You had to dress the right way and share the same political pretensions." The era compounded a growing disillusionment, and Joe quit. He's recently written music for *Flight from the Dark*. "The Spectrum didn't allow for much elaboration. I'm looking forward to writing for the Commodore version." But Joe doesn't program himself. *Lone Wolf* is being translated for him.

Joe has a passion for military history, was an David board-games man and collected lead soldiers for years. This drew him to London's *Games Centre*, a branch of which he managed for two years. It was during a business trip to Los Angeles that he encountered D&D. "One game and I was hooked." He finally won the championships in LA — a week long marathon. Joe was the only Brit there.

"There was no disadvantage," he says. "Every competitor has to take on all character classes; fighter, cleric, wizard and thief." Joe's favoured role is that of Dungeon Master. "It's an art — you've got to get the balance of the game just right. Neither too hard nor too easy."

Lone Wolf heralds a great drawing together of the clans. A decade or so ago, something was stirring amongst the idle young of America's college campuses. It was an ongoing Dungeoning and Dragoning situation. It spread. In such a big way that the ex-Wisconsin postman Gary Gygax, first to document D&D by creating its two rule books, for Masters and players, declared a staggering $52 million profit in 1982, making D&D the sixth fastest growing industry in the USA!

And from the East came the quiet literary genius of Professor Tolkien. His fertile imagination met that of thousands of others somewhere in Middle-Earth — a land created privately for his son.

Then there was computer adventure. Even prehistoric mainframes found themselves harbingers of adventuring data, as furtive, hard-bitten programmers eked out available K's in down-time. But it's with the micro that adventure is coming into its own.

We'll keep you informed of happenings. Watch out for news of *Lone Wolf*. And expect some surprises.

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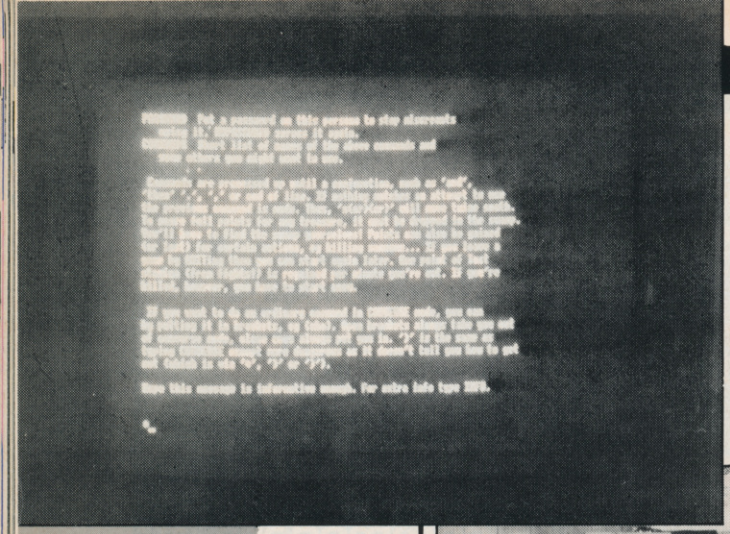
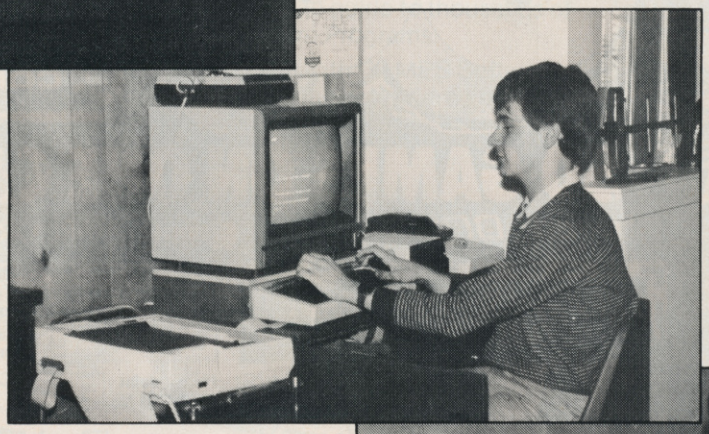




No, not that dreary brown stuff — this M.U.D. stands for "Multi-User Dungeon", and is a mammoth-scale Adventure run on Essex University's DEC PDP-11 . . . with a little help from a few hundred punters (one as far away as Japan). DAVID MACHIN's been going on-line for a while now. Here's his report . . .

WELL, IT had to happen, didn't it? Just when everyone thought that adventure games had finally reached a point where nothing else could happen, something did. Just as Matthew Smith thought that he had found the last Manic gold mine, along came MUD, as evil-smelling as ever, and, to quote from Mr Adventure himself, it really hits the spot!

No, the bugs haven't managed to mangle my memory map. Yet. What I am talking about is MUD, which stands for Multi-User Dungeons & Dragons. "Oh, not D & D again . . . old hat!" I hear you all cry. Maybe. But that isn't what makes this game special. The special bit is that you play this adventure over the phone using a modem, on a program around 2 megabytes long, and YOU ARE NOT ALONE! Indeed, around 36 other hackers can play the same game at the same time that you are . . . literally. That is to say, if you want the torch at the same time as old Elric over there, you'll either have to beat him to it, or fight over it! To play the game you need a suitable scrolling dumb terminal, preferably 80 column (e.g. a BBC Micro with a dumb terminal program), a 1200 baud modem, and an account with British Telecom's Packet Switch Stream, of which more later.

The computer that the program runs on is a rather large (if old) DEC 10, located at Essex University. As you can imagine, a lot of the students have better things to do than simply play MUD all day (that's their story!), and if all the ports were occupied by manic mud-wallowers while the amiable academics were working on wonder-projects, they would begin to gibber over their patriarchal, coffee-stained keyboards. For this reason, the MUD program can only be activated between midnight and six o'clock in the morning. This keeps the nocturnal MUD-slingers away from the students, and so everybody's happy (till the hackers start messing around, and snaffling passwords!).

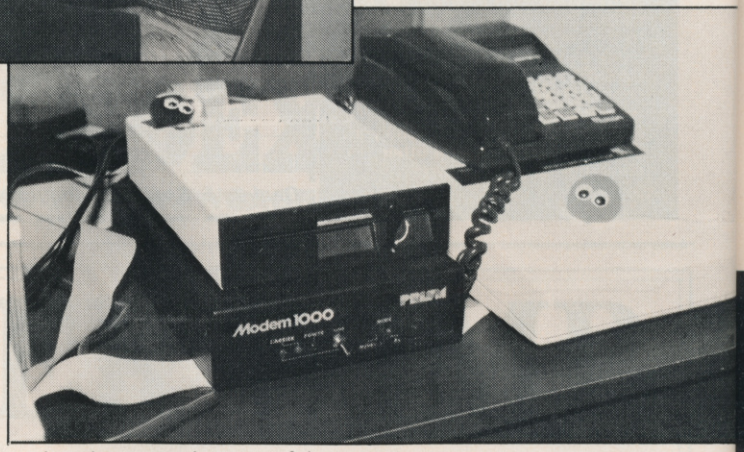
Once you have managed to log on to the system (and that would make quite a good adventure game in itself!), you are asked to enter the name that you wish to be called in MUD. This is rather like a CB 'handle', and can be anything from 'Fred' to 'Bilbo'. You are then asked what sex you are, and, if the computer doesn't recognise the name that you have entered as someone who has played before, it asks you to donate a password for your character, so that other MUD hackers can't use your persona.

Once you have told the computer who you are, typing WHO gives you a list of all the people who are currently logged on to the system. You can follow anyone who is at the same location as you, attempt to kill them, and also talk to them, and I found this probably the most interesting part of the game. you can use the command SHOUT, followed by a message, and everyone in the adventure will be informed of what you say. However, they don't know who said it, only your sex. For example, if you typed SHOUT HELLO THERE!! the words "A male voice shouts 'HELLO THERE' " would appear on everyone's screen, no matter what they are doing at that particular time. Their screen just scrolls, and the message pops up. You can communicate privately with someone by simply saying the person's name, followed by a message. For example, 'SAMANTHA, ARE YOUR PERIPHERALS COMPATIBLE WITH MINE?' would inform Samantha that someone is trying to interface with her. (Draw your own conclusions.) Then if you want to tell everyone at a certain location something, you simply use a quote, eg: 'HELLO EVERYBODY' would send your greeting to everyone at the same location as yourself.

Of course, you can also play the adventure, but you can easily find yourself doing nothing else but talk to people all night. When I have been playing, I have spoken to people all over the country, from all walks of life, and using all sorts of micros. The type of computer that the people are using does not matter. The couple of nights that I was on, I spoke to people using Spectrums, BBCs, Apples, a Commodore 64, and even someone with not one, but THREE QLs!! (None of them worked.)

The fights on MUD have to be seen to be believed. I don't know quite how the program works it all out, but the running commentaries that are given put Harry Carpenter to shame.

The descriptions of the locations on the game are extremely lengthy. Having the power of a mainframe to play an adventure certainly makes a difference. You can switch to a smaller description if you are more experienced, by using the command BRIEF. Typing SCORE tells you not only how many points you have got, but also how much experience you have, using have ratings which range from novice, the bottom level, up to Wizard, of which (witch?!) there were two when I played. The system is incredibly user friendly, and it has a very large HELP file, which will tell the user all he wants to know about playing the game . . . apart from how to solve it.



To play the game, you need a suitable terminal, and a modem. You also require an account with British Telecom's Packet Switch Stream. This is far too complex to explain here, and would really warrant an article in itself, but the general idea is that you can contact the Essex computer using special data lines, specifically designed for the transmission of data, not voices. However, you access these lines using a normal phone, and normally at local rates. You also have to pay around £6.00 a quarter for the use of the PSS system. For more details ring PSS on 01-920-0661.

I don't think that "normal" adventure games will ever be quite the same again. When you put donw your phone, and reload your adventure disc menu, you can't really decide which one to play any more. They have all suddenly lost their appeal. With only one person playing, things just aren't the same!

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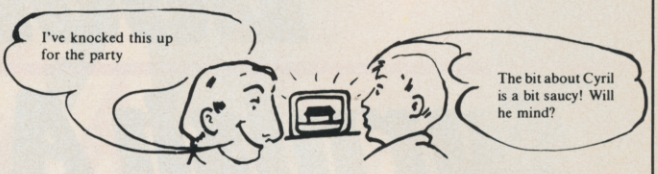

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Books Do Furnish A Game

There are books, computer books and — increasingly — computer adventure books. JOHN CONQUEST put on his lorgnettes and had a good squint at some latest examples of this rapidly-growing literary genre.

With every publisher in the world trying to jump on the computer bandwagon (I know, but you try telling them), it's a bit odd that adventure gaming (books for) is, for the time being anyway, monopolised by just two, Duckworth and Sunshine. Duckworth, small long-established company, field the Gerrard brothers, Mike and Peter; while computer book specialists Sunshine's team is the editorial staff of *Micro Adventurer* magazine.

Peter Gerrard, author of Romik's adventure games *Fool's Gold* and *Tomb of Xeiops*, is a man for all machines, though his speciality is the Commodore 64. His *EXPLORING ADVENTURES* series, at £6.95 each (for some reason most computer books are £6.95), cover the 64, Atari, Spectrum, Dragon, BBC (revised Big K issue 5), Oric, Electron and VIC, with Amstrad on the way. All the volumes share a common framework and indeed a couple of identical chapters on adventure games in general, and all have listings for the same three games (also available on cassette at £7.95). The meat of the books, however, is the detailed examination of inputting information, room mapping, vocabulary, routines and so on, which are clear and specific.

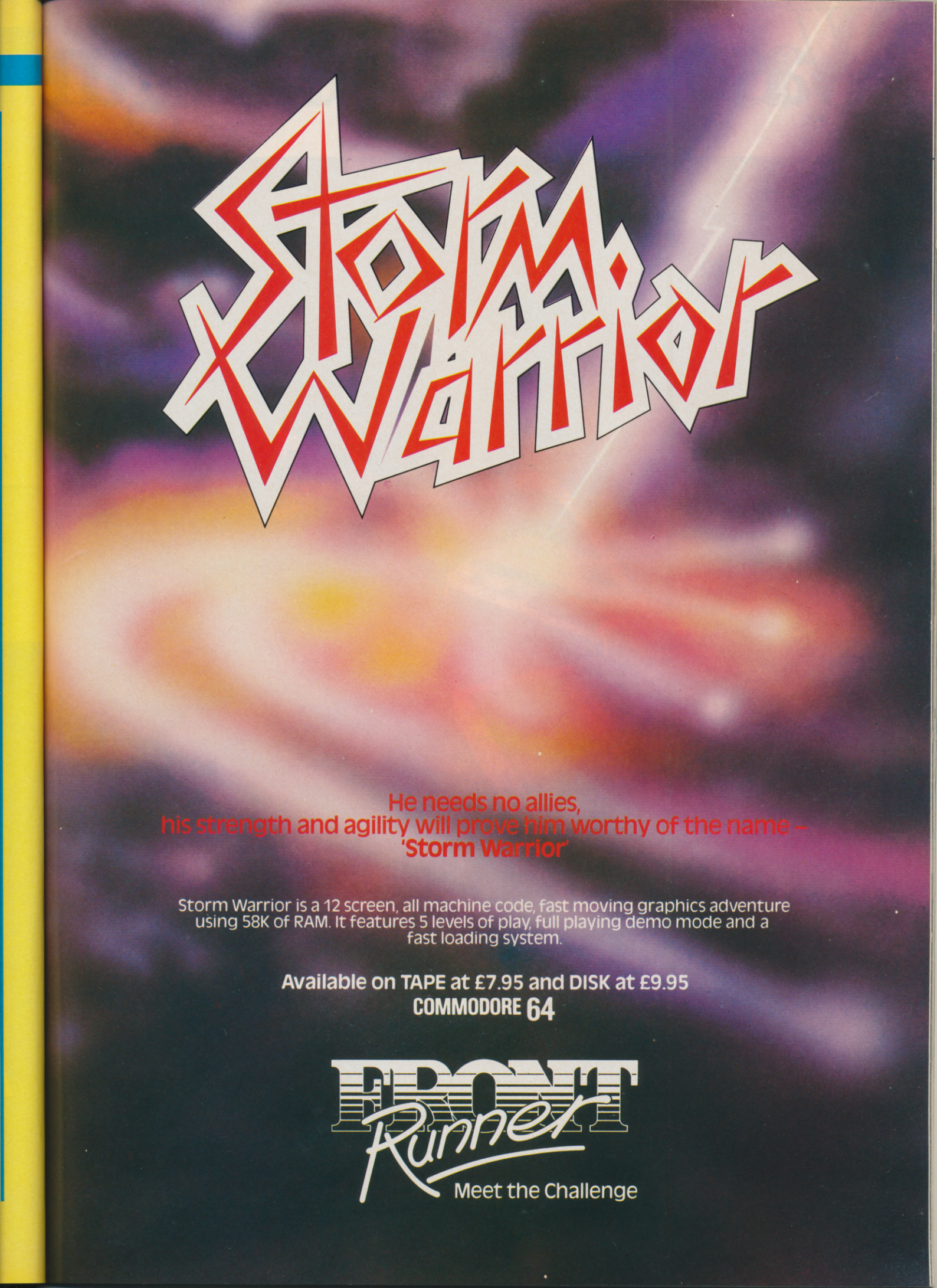
The *FURTHER ADVENTURES* series (snappy title, eh?), due this autumn for 64, Spectrum, Electron and Dragon, will cover graphics, machine code, role playing and multi-player game programming with examples that will, again, be available on cassette.

Along similar lines, Sunshine's offerings are *SPECTRUM ADVENTURES* by Tony Bridge & Roy Carnell, *COMMODORE ADVENTURES* by Mike Grace, and *ATARI ADVENTURES* by Tony Bridge, all sub-titled "A guide to playing and writing adventures" and £5.95 each (some mistake, surely?). The first (playing) half has a very high flannel content and, in the Atari book, you can almost hear Bridge's sigh of relief as he opens the second half with "Now at last we're getting down to some serious programming!" Not the most fluent writer in the world, Bridge is on much firmer ground when he gets down to the nuts and bolts of creating dungeons, monsters, combat systems, graphics, movement and menus.

If you're looking at the choice between Atari, 64 or Spectrum books, Duckworth's certainly spend more time on the actual programming, 167 pages to Sunshine's 42, with another volume to come. But this may be an unfair way of looking at it. Gerrard spells everything out slowly and carefully, while Bridge assumes the reader can keep up.

What all the above have in common is an inordinate amount of padding, duplication and downright waffling — both Duckworth and Sunshine could use a good editor. By far the best writer of the adventure game crowd is Mike Gerrard, so it's a pity he doesn't have a proper book of his own. His *THE ADVENTURER'S NOTEBOOK* (£3.95) is a playing aid, and a good one. The bulk of it is pages of ready-made skeleton maps and pages for entering locations, objects found, actions tried and results, recognised words and general notes. The idea is to do away with that awful mess of bits of paper, covered in scrawls, cryptic notes and crossings out, incomprehensible even to their maker (you, sunshine) and collect them all into one convenient package. I love the idea and up to a point it works very well, but it would have been even better in a ring binder rather than spiral bound. Gerrard's introduction which is a great read, covers hints, history, recommended adventures (by machine), useful addresses and synonyms.

The Brothers Gerrard collaborated on *THE ADVENTURER'S COMPANION* (£3.95) which is a real bone of contention. This one is very straightforward — solutions, not hints, not suggestions, not clues, but 100%, full-frontal, explicit *solutions* to the problems of *The Hobbit, Colossal Cave Adventure* (a.k.a *Adventure,* a.k.a *Adventures,* a.k.a *Colossal Cave), Adventureland* and *Pirate Adventure.* Anybody who's solved any of these games the hard way would be justified in being pretty irritated by the idea of just looking up the answer, but the many people who've got themselves stuck in one will find it a godsend. Trouble is that to get the best value out of these games you'd have to use this book only as a last resort, which is asking for superhuman self-restraint. Personally I would have preferred a collection of hints, along the lines of Level 9's foxy but invaluable clue sheets, which help you without giving everything away, for a much wider range of games.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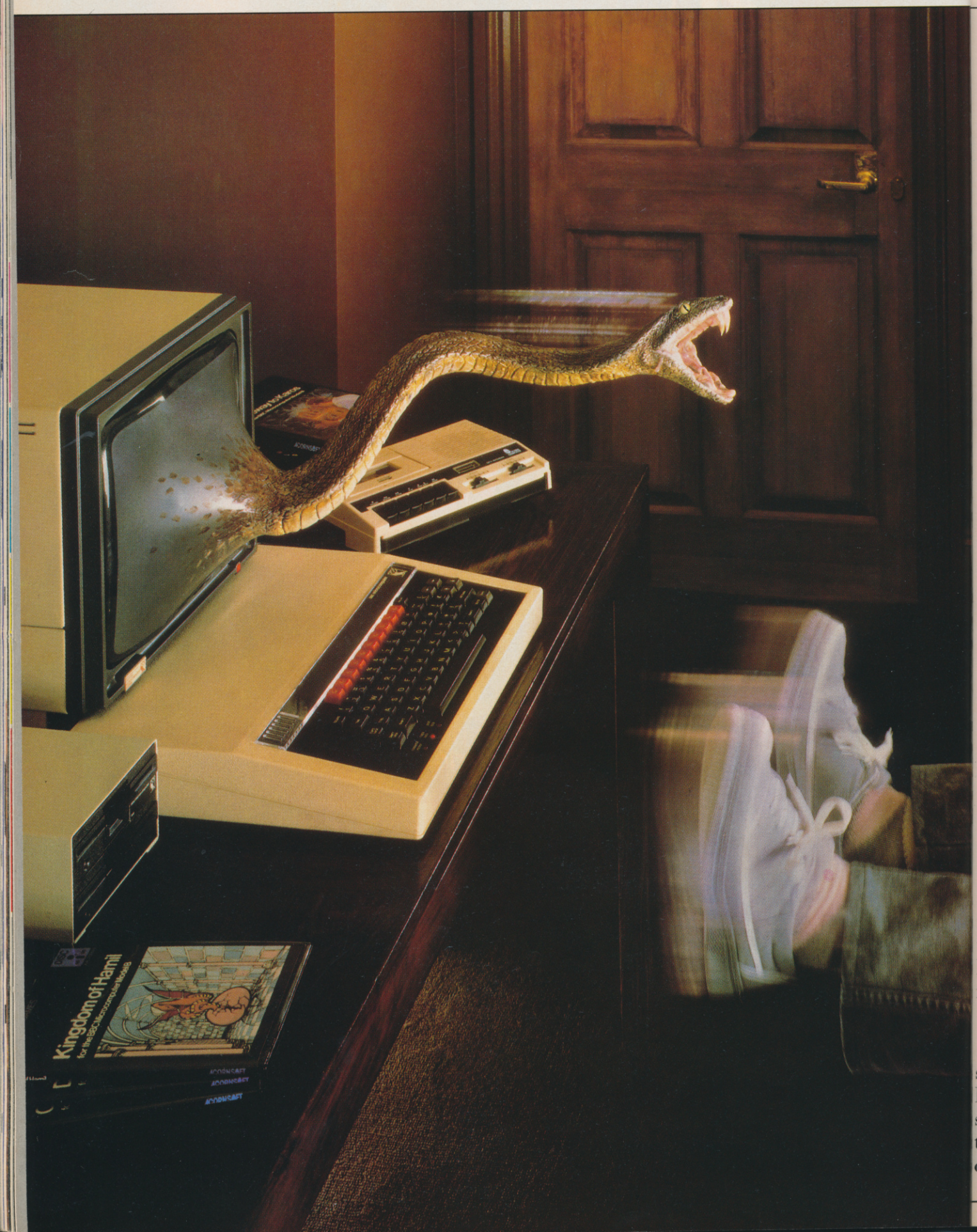

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Acornsoft have now unleashed eight more merciless games onto unsuspecting BBC micro owners.

Ranging from 'Gateway to Karos', where putting a foot wrong could mean instant death. To the relentless antics of Drogna which could have you dying with laughter.

Gateway to Karos.

An adventure game in which you'll need all your patience and ingenuity just to stay alive. Your objective is to find the Talisman of Khoronz but, whichever path you choose, you'll be beset by treachery. Serpents lie in wait and magical phenomenona are in abundance. Should you find the Talisman, you've still to find your way back.

Kingdom of Hamil.

As the rightful heir to the Kingdom of Hamil, you are in the unusual position of having to prove your claim to the throne. Evil people are trying to prevent you accomplishing your task by any means. An adventure game fraught with many dangers, puzzles and problems.

Tetrapod.

You're in an arena littered with dormant lizards, killer bees and other hostile creatures with whom you'll have to do battle to survive. But beware of your own laser bullets, as they bounce off the arena walls.

Drogna.

A game for two people – preferably with devious minds. There are two vaults containing diamonds and your job is to collect and transfer them to your home base. While your opponent is out collecting you could sneak in and steal his loot . . . but keep an eye out for him doing the same to you.

Crazy Tracer.

An arcade style game where you're in charge of a paint roller. Guide your roller around a maze of rectangles while evading monsters who are committed to destroying it. Gain extra rollers and bonus points by painting different objects. But you'll have to avoid running out of paint.

Volcano.

Mount Crona has erupted after 150 years of silence. And your mission as an Emergency Rescue Helicopter Pilot is to save sightseers stranded on the slopes. Time is of the essence as the lava approaches the sightseers. But you'll have to take time to evade – or shoot – the boulders being hurled from the volcano.

Carousel.

A re-creation of the fairground shooting gallery – with a difference. Shoot down all the ducks, owls and rabbits before you run out of ammunition. Watch out for the low-flying ducks. If you fail to shoot these, they'll steal your bullets and reduce your chances of success.

Meteor Mission.

On an alien planet are six stranded astronauts. Launch your capsule from the Mothership and by avoiding – or shooting – meteors and alien craft, pick up the astronauts one at a time and return them to the Mothership.

All games – with the exception of Gateway to Karos which is currently only available on cassette – can be bought direct in either cassette or disc form. You will find all these programs at your local Acorn stockist. To find out where they are simply call 01-200 0200. Credit card holders, phone 01-200 0200, anytime. Or 0933 79300, during office hours.

Alternatively, you can order the games by sending off the coupon below to: Acornsoft, c/o Vector Marketing, Denington Estate, Wellingborough, Northants NN8 2RL. Please allow 28 days for delivery.

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ACORNSOFT

NOT FOR SALE: USED AUSTIN (29)

LEVEL 9 Computing, source of *Colossal Adventure, Adventure Quest, Dungeon Adventure, Snowball* and *Lords of Time,* is very much a family affair. From their home on the outskirts of High Wycombe, massed Austins prepare to ruin the working and sleeping patterns of innocent owners of a range of micros that includes the BBC, Spectrum, 64, Ataris, Lynx and Oric, with Memotech and Amstrad on the way.

Mike and Nick are the coders and interpreters; Margaret, with the help of Mother, runs the business side; while designer Pete sits at the centre of the web, working on new and ever more fiendish adventure games.

Pete, now 29, studied natural sciences at Cambridge where he developed two different interests that go a long way to explaining Level 9 — Dungeons & Dragons and computers. Abandoning biology, he spent a year in commercial computing, writing Cobol before moving to developing scientific systems on a DEC-type machine. Just before the company fell apart, he joined Hewlett-Packard ("definitely a mistake") only to find that their promised 'research lab' was in fact a coding shop.

Along the way he started Level 9 which, with a Basic utility and a Valhalla (without pictures) game for Nascoms, had become a profitable hobby. It got on its present course with his implementation of *Colossal Adventure* (see page 54) which included his own endgame. His first complete design, however, was Adventure Quest, which marked the first move away from Nascoms.

The BBC had just been launched: "We saw it as a good machine, nice to work on and obviously it would sell. I guess I'm different. The traditional route is via the Spectrum, but we didn't like the Spectrum as a machine to write programs on. It's not got the facilities that the BBC has. So we went for the BBC first and produced Spectrum versions later". These days, though, Pete sees the BBC as the limiting machine that restricts game development.

Quest was followed by *Dungeon Adventure* — still Pete's favourite — for BBC, Spectrum and Nascom. But in June 1983, fed up with his job and seeing that professionalism was the coming thing in computer games, he quit and Level 9 became a full-time occupation with brother Mike, who had just left school, pitching in.

With the 'Middle Earth' trilogy behind him, Pete turned next to science fiction. The massive 7000-location *Snowball,* the first in a projected, and fully realised, *Silicon Dream* trilogy *(Return to Eden* should be out soon, with *The Worm in Paradise* to follow) has achieved justified fame, voted a favourite by adventure gamers.

Lords of Time, designed by Sue Gazzard but altered and amended by Pete completes the current list. "It's slightly easier than *Dungeon Adventure.* People were writing and saying the games were getting too hard. I'm going back to making them harder now. Future ones are going to be pretty hard."

Future ones, at the moment, are *Red Moon,* Level 9's first graphics game, and *Erik the Viking,* based on Terry Jones' prize-winning childrens' book and with stunning graphics. *Red Moon* was designed by Dave Williamson, but once again heavily worked over by Pete. "When we get designs from other people, we usually have to make loads of changes. I had to censor Dave's descriptions. He'd got dead bodies rotting round every corner!

"*Erik* is probably the last game to be done entirely by me. I think in future I'll have to spend less time on each one. It was interesting to read an interview with Scott Adams where he said he could design a game in a week and code it in another two. It's physically impossible to do our games in anywhere near this time. Each one takes a couple of months. We've got 200 locations while Adams only has to worry about 30.

So who does Pete admire? "Infocom. I like their sense of humour. I've gone off Adventures that take themselves deadly serious. I prefer things where you take a wrong turning and fall into a sewer rather than get crushed by a rock, for instance, and come out smelling so awful the other characters avoid you. I don't like adventure games where you go in and kill everything. I prefer games with puzzles and atmosphere where you have to think before acting.

"One of the directions I see adventure games going is towards multi-player games — and that very rapidly becomes role-playing. The problem is the interaction. Parties would be virtually impossible; people wouldn't be willing to sit around and wait for you".

The key question is, of course, how does Austin squeeze 300K of Fortran program into 32K? The answer is 'a-code'. "To write in, it's like a machine code in its facilities, for an idealised adventure machine. that's the highbrow explanation. The lowbrow one is that it's a very simplified version of Basic which compiles down into a couple of bytes for each code. Normally Basics compress the key word but hold the rest of the statement in text. What a-code does is compress the whole lot down into a single instruction, rather like an assembler, but it doesn't actually go right the way down to machine code. It's really very compact and it's portable as well, so effectively all our games are interpreted. We have an a-code interpreter on each machine."

With the actual games well sorted out, Pete's main concern these days is to make Level 9 more professional. Already the new packaging is a considerable advance on the old, but even this is to be overtaken. "We'd like to have artwork that you wouldn't mind hanging on your wall." Even the box design is being reworked for user convenience. Advertising is going to be put in the hands of an agency, routine office work given to a secretary — but what Austin is really looking for is a full-time artist. "There's somebody I'd really like to use if I can persuade him, but you can't really say that there's a secure future in computer games. Imagine's overheads were absurdly high — cars and office block and all those trimmings. We keep ours as low as we can, though I suppose we'll need proper premises sometime."

Level 9's future looks pretty secure. A strong back list — Pete stands by every title, which must be pretty rare among game companies — and sound, well thought-out future plans. *Erik* is pretty certain to be a Xmas biggie, while the move into graphics will bring them into a whole new market. And if Pete Austin is half as good at pictures as he is at text, then don't wait for reviews of *Red Moon* and *Erik the Viking.*

Adventure-makers are a special breed. JOHN CONQUEST and NICKY XIKLUNA talked to a couple of megastars in the field.

CODENAME VELNOR

DEREK BREWSTER has a thing about making complicated plans to save the universe.

Well, we're all entitled to our little peccadilloes. Derek's just happened to have produced two best-selling, highly-complex games — *Velnor's Lair* and *Codename Mat*. He's also written *Haunted Hedges* and *Starclash* for Micro Mega, and is currently working on an un-named Indiana-style game.

Velnor's Lair is compulsive and concise. What strikes most people is Derek's ability to conjure up vivid and atmospheric word-pictures in just a few staccato sentences. But the Lair's been around awhile now. Would he not tap in some illustrations if he were writing it today?

"Nope. Graphics have become like chips. (Potato version). People expect to have them with everything. The result is a preponderance of low-level graphic adventures. They're boring and lurid and totally lack atmosphere. But yer real connoisseur — he still goes for text adventures."

But no man is an island. And Derek's not stuck his neck out too far in the war of grey matter versus colour splatter. He's conceded 3K to the winning side in his new release — *Kintilla*.

It took Derek one and a half years to write *Kintilla* for Quicksilva. The game features 32 characters and 50 collectable objects. It's a double first for Adventure in that it'll compute whole sentences, *and* it incorporates edit mode over previous commands.

Welcome attributes you'll agree. I for one get cheesed off having to reduce my vocabulary to that of a trepanned troll every time I want to play an Adventure. And I certainly miss edit mode after having had intimate knowledge of a word pro.

Kintilla carries on from where *Velnor* left off. The story goes thus: After Velnor was vanquished, there remained a corridor that led from Earth to Hell. The evil demon Grako sped along it, seizing Velnor's moonstone as he went. Naturally, this enabled him to become supreme power on Earth, to be valiantly vanquished by you alone . . .

Brewster has tired of stock fantasy critters, and has come up with his own inventory. So beware of Zats, Argamoles and Rotting Quark, amongst others. Another word of warning — polish up your Velnor before you play Killiam — I have it from the horse's mouth that it's dashed difficult. But Derek has a clue for Big K'ers. "Remember that the game is named after a certain sword. That's VERY IMPORTANT." We have it noted, Derek.

The Brewster Catalogue is certainly one that sorts out the men from the molluscs. Speaking as the latter, Codename Mat left me completely floored. I admired the brilliant programming that bought this *Star Raiders/Star Trek*-style spectacular to life. As Mat, you have a great variety of technology in your space-craft. You have a long distance tracking device, a scan across the solar system, and control panel. You speed through the stars (cruise speed and warp too), or you can take a peek over your shoulder through the back window — and see the stars speeding away from you. Cor!

Clever stuff. But masterminding the whole gismo to save the Universe became too much for me. I had to boldly go where no Xikluna had gone before — and got lost. Then I was assailed by so much flak that I can only compare what happened to an average working day at Big K. Why did Derek produce such a complicated game?

"A really good game has to be as believable as possible. It needs thought, time and has to be worked out perfectly. Absolutely everything must flow into a kind of universal master-plan. That's most obvious in the case of adventure. I mean you can't have an iceberg next to a desert, can you?"

So how did Derek stumble across his proclivities?

"I was at University in Newcastle — and started playing *Colossal Cave* on the mainframe. I got hopelessly hooked, and never stopped playing. One day it struck me that the game lacked realism. There was no atmosphere, and the combat sequences weren't up to much. So I thought I'd have a go. That was the first of *Velnor's Lair* — except at that stage it was just called 'Derek's Adventure'. The problem was that the compiler I was working with only possessed 20K of memory. I was a bit too shy to ask for more."

Luckily for posterity, the Spectrum arrived in the nick of time, (Fanfare). Derek translated, expanded and renamed 'Derek's Adventure', and Quicksilva rapidly crossed the Brewster palm with gold. Well, silver.

What does Derek do now in his spare time?

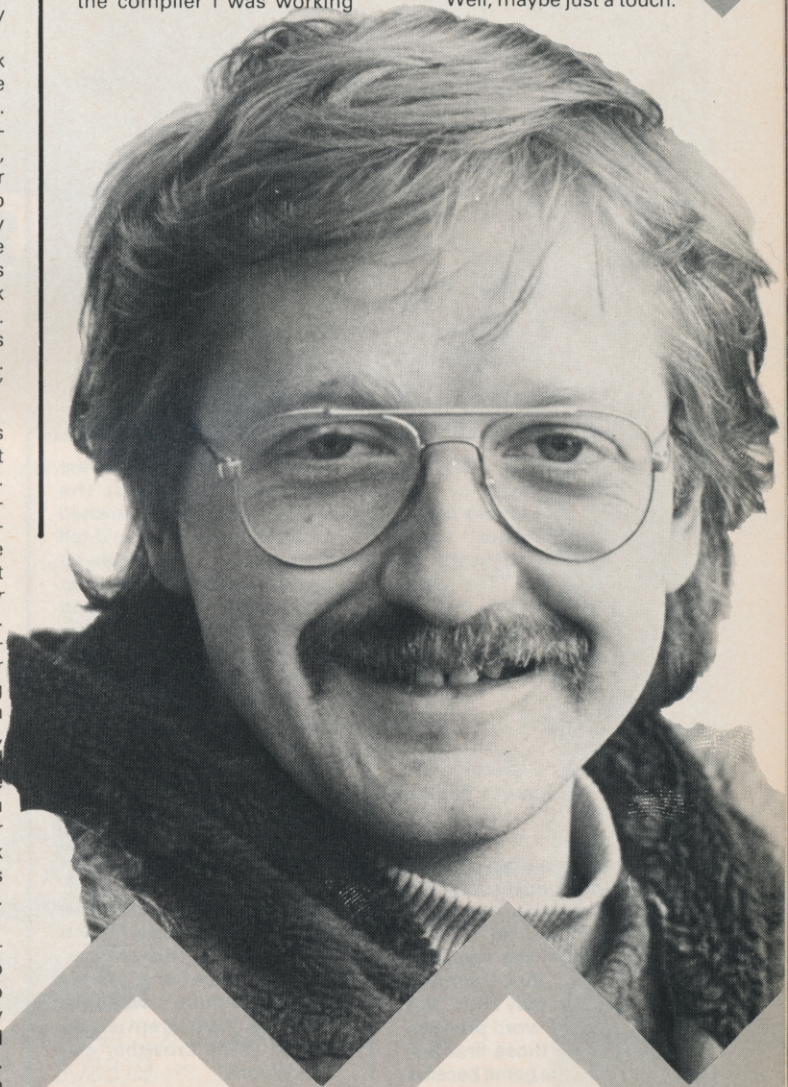
"Oh, I'm doing a PhD in geo-physics. Rock magnetism, actually, and how it affects the movement of the Earth's crust. I'm trying to find a way of stimulating the attraction of rocks to one another in a laboratory. You know."

Sure I do . . . Anything else?

"Sleeping. I did it very well all through school. I like my freedoms best of all. That's why writing games for a living suits me down to the ground. I really enjoy it, I make a living and I don't have to work nine-to-five."

Touch of the perennial student perhaps?

"Well, maybe just a touch."



No.6: COLOSSAL ADVENTURE (*LEVEL 9*)
Orig. Colossal Cave

AND THE WORD WAS XYZZY!

"I'VE GOT a map of the pirate's maze. What have you got?"

"The pirate's maze! Hot dog! Let's think . . . do you know how to get past the troll for free?"

"Really? Not bad! Anything else"

"Well that's pretty good isn't it? OK, how to kill the dragon."

"Done."

"You certainly have been."

I spent the winter of 1982/3 haggling like this. The office had just acquired a word processor and the suppliers threw in a disc labelled 'Adventur. To play with'. Not a whole lot of word processing got done those first few weeks, and the game became an office obsession. When the top brass came past the excited little groups hunched round the monitor, we'd tell them that it was hands-on experience. It seemed to keep them happy. Then we found that other people were playing it too, and the trading began. In those days there weren't any helpful books.

What we'd been given was a genuine, no-argument classic, the kind of thing that will get a chapter to itself when professors start writing the history of computing. Its origins lie far back in the very dawn of the computer age, around 1975, when the first version, variously known as *'Adventure'*, *'Adventures'* *'Colossal Cave'* or *'Colossal Cave Adventure'*, was created by two gentlemen named Willie Crowther and Don Woods.

Some might say that creating games with no redeeming intellectual, scientific or social value using multi-million dollar equipemt and valuable computer time, was a prime example of the tendency of Homo Ludens to reduce everything to play. Others might cite it as a glaring instance of irresponsible computer freaks deliberately abusing their employers' trust. Most of us will just be glad that in that golden moment, the adventure game was born.

Crowther and Woods' game was written in Fortran (300K of it!) and ran on DEC PDP 11s, but was soon translated into other mainframe versions. An American business computer magazine survey showed that the average company lost two full weeks of programmers' time whenever the staff laid their hands on an implementation of *'Adventure'*.

Translation

The game's translation from mainframes to micros was in three stages. First came a CP/M version, painfully slow, that ran on many business machines (such as ours). Then came Jim Butterfield's condensed version for PETs and a rather primitive assembler version for IBMs, the game being in the public domain. Finally came the fully matured version — Level 9's.

'Colossal Adventure', as Level 9 dubbed it, was originally intended to be a complete version of the game for micros, with their own a-code making it possible to squeeze the whole 300K's worth into 32K. However, after advertising it as a 200 location adventure, when Level 9's Pete Austin sat down and counted them, he found to his horror that there were actually only 130 odd. Being a man of his word, he promptly added a 70 location endgame, and that's the version that you can get for virtually any computer.

Colossal Adventure illustrates from the word Go the importance of the Five Golden Rules Of Adventure Gaming — 1. Make a map. 2. Everything is there for a reason. 3. SAVE before you do anything that looks chancy. 4. Read all descriptions very carefully. 5. You haven't got all day. The fact that nobody has come up with a game that adds to these shows how sound Crowther and Woods' pioneering work was.

Most of these rules should be obvious, though in my experience many players aren't fully aware of them or their implications. Mapping mazes, for instance, ought to be dead easy, but I was able to trade my maps for *Colossal Adventures* for solutions to real problems.

The map bears directly on the time aspect. At the beginning of Colossal Adventure you find a lamp which you can switch on. However you can also switch it off, and you need to do this whenever possible because it will burn out sooner or later, leaving you to break your neck in the dark. With a map you can wind the game up before the batteries give out. Otherwise you'll have to put coins in the battery dispenser. What battery dispenser? That's your problem, chum.

Colossal Adventure set the standard for puzzle setting in later games. Call it the Golden Rule for designers — a game should not be impossible to solve — a rule that is not always observed even now. The solutions are devious, complicated and sometimes downright bizarre (though Level 9 accidentally abolished my favourite, how to kill the dragon, in their version), but there's always an answer.

At one time Level 9 used to provide a one problem solution per player services. You got, and still get, an envelope with your copy which you could use once, and once only, to get out of a jam. This didn't work out too well, so now they send you, on request, a clue sheet which will at least point you in the right direction. On top of this you can find answers to many of the problems in various adventure game books (see page 10), which regularly use the game as an illustration of the genre.

There are a number of differences between Level 9's version and the original. Some are relatively minor; one of the treasures has been

CONTINUED ON PAGE 59

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What Next From The House Of Hobbit?

Since the appearance of the dreaded Bilbo and the even more dreaded Thorin Oakenshield lo these many moons ago, Melbourne House has acquired a heavy rep as an adventure games company (despite more than a few balancing arcade offerings). Now the "Wizards from Aus" are conjuring up a whole new slew of adventures. RICHARD BURTON investigates . . .

SHERLOCK (Spectrum 48K, Commodore 64). Despite a long delay of almost QL proportions, Melbourne House have finally released their much-touted Sherlock Holmes adventure. Expectant punters can at last don the famous deerstalker and, via the wonders of *Inglish* and *Animtalk,* deduce their way through a complex case involving Holmes, Watson and a cast of dozens. Limited graphics and real-time play help make this one of the more challenging adventure games to appear on the scene. Out now, cassette format, £14.95. *(Sherlock* is BIG K's *Pick of the Month.* See full review on page 15)

ZIM SALA BIM (Commodore 64). Features smooth, arcade-style graphics which depict every location in the Arabian-inspired graphic adventure. Murder, mystery and intrigue abound and you move your character through the desert and the Sultan's seemingly impenetrable fortress. Control is by joystick or cursor keys plus text input. Graphics by Russell Comte, who was responsible for the brilliant visuals of *Mugsy. Zim Sala Bim* is the first in a line of graphic adventures for the CBM 64. Cassette based, it costs £9.95 and should be out now.

WILD DOGS

CASTLE OF TERROR (Commodore 64). Everyone's favourite vampire is back. This time Dracular (no kidding, that's how they spell it) has locked a maiden in his tower. You must make a trip through the proverbial village to the castle, then survive a maze of haunted passages infested by wild dogs and armoured knights (bit of genre-mixing here) to perform the traditional rescue. Billed as ". . The next milestone in sophisticated graphic/text adventures since *The Hobbit"* (where have we heard that before?) *Castle of Terror* combines advanced phrase-handling input along with colour graphics and sound. Due out in mid-October, the game comes in cassette format for £9.95.

HAMPSTEAD (Commodore 64, Spectrum 48K). The answer to every closet capitalist's dream — you must lie and cheat your way up the social ladder from the depths of Harlesden to the trendy heights of Hampstead. Conceived in Britain the game was coded and packaged in Aus. Available now in text only version for the Spectrum 48K and with graphics on the CBM 64.

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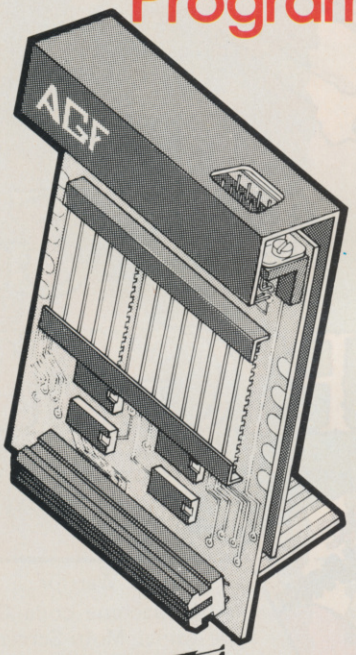

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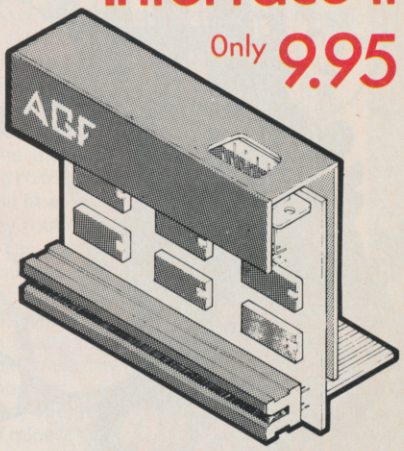

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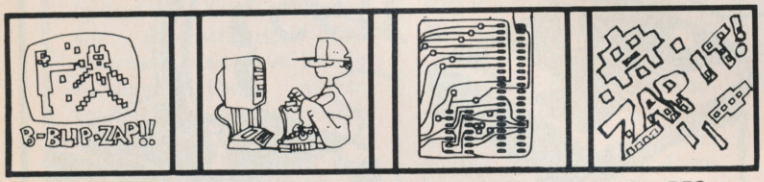

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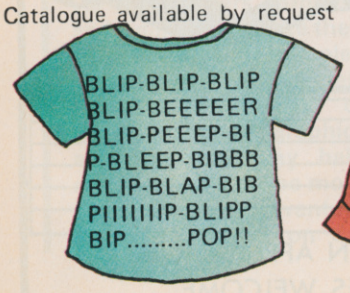

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CONTINUED FROM PAGE 54

moved, it is, if anything, easier to find, and one of the utilities (the food) has been shifted and takes a bit of work to acquire. More crucial is the limit on how much you can carry. Level 9 have rather cruelly cut this down from seven items to four, which means that you have to get back to base to unload treasures far more often. All that running around means that your lamp is more likely to burn out before you've finished. And if the pirate gets you with two treasures, you're in real trouble, because you can't carry them and the chest (assuming that you can find them at all, that is) and your lamp and your axe at the same time, so it's either two trips or, horrors, drop the axe before you go in the maze. Pretty unpalatable alternatives, what?

Another small, but tricky change is that Level 9 don't remind you about the axe after you've thrown it at a dwarf, which is OK as long as you're still fighting, but makes it very easy to forget it after you've killed the little brute. This can be very embarrassing later on when you find you haven't got it any more, inevitably when you really need it.

But the big, big difference is the endgame. The original game had 350 points to win, at least 1 of which was strictly for perfectionists (Spelunker's Gazette). Level 9's has 1100, and boy you have to work hard for them. The endgame is a fiendishly difficult race against time, with a particularly brutal maze bang across your only route. What's more, none of the guidebooks covers it, so you are on your own.

Even by Level 9's present standards, *'Colossal Adventure* is not the best game available, nor the most engrossing, the most difficult, the most fun, or indeed the most anything. Compared to *Snowball, Zonk, The Hobbit* to *Lords of Midnight* it might seem primitve and restricted, solvable by methodical plodding. But — and it's a very big "but" — but it is the grand original, the prototype game from which all the rest have sprung, the inspiration for games that have surpassed it in almost every way, but can never claim that essential creative spark. In the Beginning was the Word, and the Word was XYZZY.

FOR THIS X MAN, MARKED THE SPOT...

As the author of *Adventure X* (BIG K Issue #2), STEVE CRADDOCK knows a thing or two about getting started. Here's a tip or two from the man who made Aardvarks a force in the world . . .

"HOW DO you write an adventure?" they asked me. It all starts with an idea. At a later date I'll go through writing an adventure, but for the moment, let me tell you about the adventure we listed in *Big K* 2 to give you an idea.

The original idea for *Adventure X* was a game for a friend of mine, who enjoys playing adventures, but gets frustrated by the more knotty problems. I decided to develop a program whereby he could go on exploring for as long as he liked, but sooner or later couldn't fail to finish the game. More exploration than mental gymnastics, but still providing a lot of the fun.

I wanted to avoid dungeons, dragons and the more 'traditional' scenarios, so the thought of something almost familiar, but not quite, had some interesting possibilities. Exploring an alien city seemed an exciting prospect, full of strange rooms and passages, but littered with familiar everyday objects — Mars Bars, video recorders, digital watches, aardvarks — well, I like aardvarks (and a little aardvark never hurt anyone!)

As the storyline developed, the ideas began to suggest themselves and so did the programming problems. Which is the best way to learn: create the problem, then try and solve it, develop it further and then solve the new problems! Starting as a simple text routine, the program developed more complex situations and responses, better display with graphics and thus into an altogether more colourful game.

I did create some headaches too! Trying to make the events and rooms as random as possible caused problems (at one time almost every room had stairs!), as did giving away as little as possible about how to 'win' the game while you were typing in the listing!

Most of the programming was developed in modules — getting each part in working order before going onto the next. This made it much easier to expand and improve the game. Presenting the information and data in order came first — displaying the descriptions etc. — then the basic input routine. This allowed me to test just the 'bare bones' by moving around the city. Then came the responses: trying to think of everything I'd tried while playing adventures and trying to fit in as much as possible. Next came the display routine, presenting the information as clearly as possible and, along with all the scoring routines, making the game look attractive to play. Finally came the introduction, replay option and tidying up.

I found Betasoft's extended BASIC program most helpful while programming, as this includes trace, renumber, auto line number and many other handy routines. Figure 1 shows a useful routine of mine which you can save on tape and merge with new listings you are entering. When saving what you've keyed in so far, enter 'GO TO 9995' as a direct command. This will auto-save the program, and then return, ready to continue. On reloading, it will list the current line number, ready to carry on. POKE 23609,30 provided the popular 'typing beep' and POKE 23562,2 speeds up the cursor movement, making editing of long program lines or data much easier. Line 1 is used to store the current line number and should be just a simple *REM* statement.

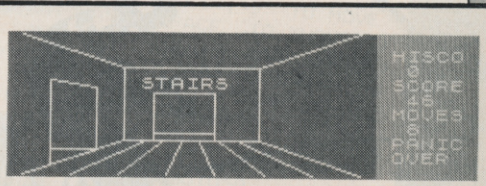
I've improved the game enormously since it saw print, and you may like to try some improvements yourself, though you'll have to check through the listing to see what your changes will affect. Add more descriptions in the data lines. When you've run the program, these can then be deleted to save space, as long as you don't use 'run' or 'clear' again (use GO TO . . .!). Move the intro to the end of the game, and the screen set-up to the beginning. This will speed up the display. And so on and so on. Or you could have a go at writing your own game. Happy adventuring . . .

Fig. 1

```
PROGRAM SAVE ROUTINE by Craddock

   1 REM ??: REM 2 digits to sto
re line no
9995 LET prog=PEEK 23635+256*PEE
K 23636: POKE prog+5,PEEK 23625:
 POKE prog+6,PEEK 23626
9996 SAVE "progname" LINE 9998:
BEEP .05,0: PRINT "Rewind and pl
ay to verify"
9997 VERIFY "": BEEP .05,0

9998 LET prog=PEEK 23635+256*PEE
K 23636: LET line=PEEK (prog+5)+
256*PEEK (prog+6)
9999 POKE 23609,30: POKE 23562,2
: LIST line
```

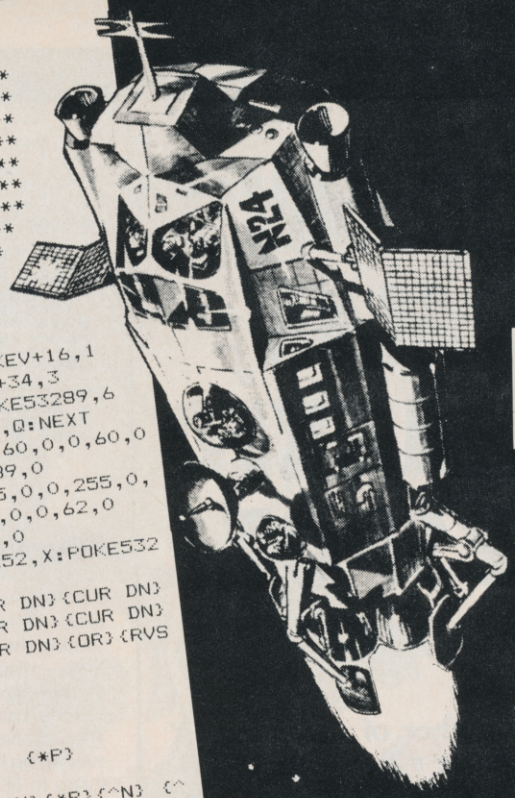



```
I'm in a cavelike room. There's
some rickety-looking stairs here
Exits are down, west,
Looking around me I can see
     nothing else

What shall I do now, Paul?
> get can
I now have the can of coke
What do you want to do now?

drink itL
```

```
1 REM   ***********************
2 REM  ***                   ***
3 REM *** LUNAR LANDER-64 MK2 ***
4 REM ***                     ***
5 REM ***    BY PAUL SMART    ***
6 REM ***                     ***
7 REM ***   STARTED 23/3/84   ***
8 REM ***                     ***
9 REM *** COMPLETED 24/3/84   ***
10 REM ***                    ***
11 REM  ***********************
12 RESTORE
15 POKE53269,0
20 GOTO600
50 F=600:SP=0:SC=0
55 POKE53281,0:POKE53280,0:POKEV+16,1
60 PRINT"{CLR}":V=53248:POKEV+34,3
70 POKE53269,4:POKE2042,13:POKE53289,6
95 FORN=0TO62:READQ:POKE832+N,Q:NEXT
130 DATA0,0,0,0,0,0,0,24,0,0,60,0,0,60,0
,0,126,0,0,126,0,0,255,0,0,189,0
131 DATA0,255,0,0,255,0,0,255,0,0,255,0,
0,255,0,0,255,0,0,126,0,0,26,0,0,62,0
132 DATA0,60,0,0,126,0,0,255,0
135 F=600:X=175:Y=70:POKE53252,X:POKE532
53,Y
136 PRINT"{HOME}{CUR DN}{CUR DN}{CUR DN}
{CUR DN}{CUR DN}{CUR DN}{CUR DN}{CUR DN}
{CUR DN}{CUR DN}{CUR DN}{CUR DN}{OR}{RVS
 ON}
  "
137 PRINT"{RVS ON}
                  "
138 PRINT"{RVS ON}    {*P}    {*P}
                  "
139 PRINT"{RVS ON}   {^N} {^M}{*P}{^N} {^
                  "
M}              {*P}    {*P}
140 PRINT"{RVS ON} {^N} {^M} {*P} {^N} {
^M}              {^N} {^M}{*P}{^N} {^M}
      "
```



LAND AT LUNAR BASE ONE!

RUNS ON CBM 64

By PAUL SMART

In t
Lun
obj
you
one
pre
Tra
Bas
stri
spe
less
per
Con
›=F
SPA

In this version of Lunar Lander the object is to land your Module on one of the prepared Tranquillity Bases (flat black strips). Descent speed must be less than 200 feet per minute.
Controls: ‹=LEFT
›=RIGHT
SPACE=THRUST

```
141 PRINT"{RVS ON}{^N}  {^M}  {*P}  {^N}
{^M}          {^N}  {^M}  {*P}  {^N}  {^M}
    "
142 PRINT"{RVS ON}  {^M}    {*P}    {^N}  {^
M}      {^N}  {^M}    {*P}    {^N}  {^M}
    "
143 PRINT"{RVS ON}
{^M}    {*P}    {^N}  {^M}              {^N}
144 PRINT"{RVS ON}
                    "
145 PRINT"{RVS ON}
 ON}                    {RVS OFF}  {RVS
}                  {RVS OFF}  {RVS ON
146 PRINT"{RVS ON}
                    "
147 PRINT"{RVS ON}
                    "
150 PRINT"{WHT}{HOME}{RVS ON}FUEL =
{CUR L}{CUR L}{CUR L}{CUR L}"F;:PRINT"{R
VS ON} SCORE =     {CUR L}{CUR L}{CUR L}{
CUR L}"SC;:PRINT"{RVS ON} SPEED =          {
CUR L}{CUR L}{CUR L}{CUR L}{CUR L}"SP
155 IFX>254THENX=254
156 IFX<18THENX=18
200 POKE53252,X:POKE53253,Y
201 IFF<10THENF=0:IFF<=0THENY=Y+5:IFF<=0
THENSP=SP+30:POKE53253,Y:IFY>200THEN300:
GOTO210
203 IFF<10THENPRINT"{WHT}{HOME}{RVS ON}F
UEL =  0  ":GOTO201
205 IFY>=200THENGOTO300
207 IFY<10THENY=10
210 SP=SP+10:Y=Y+2:IFSP>200THENY=Y+4:IFS
P>400THENY=Y+8
250 GETA$:IFA$=""THEN150
260 IFA$="<"ORA$=","THENX=X-3:F=F-2:GOTO
150
270 IFA$=">"ORA$="."THENX=X+3:F=F-2:GOTO
150
280 IFA$=" "THENSP=SP-20:F=F-10:Y=Y-4:GO
TO150
300 IFY>=200ANDX>=232ANDX<=240ANDSP<210T
HEN400
305 IFY>=200ANDX>=72ANDX<=80ANDSP<210THE
N400
309 PRINT"{HOME}{CUR DN}{CUR DN}{CUR DN}
{CUR DN}{CUR DN}                    CRASHED"
310 S=54272
315 FORL=0TO24:POKES+L,0:NEXT
320 POKES+0,240:POKES+1,33
325 POKES+5,15
340 POKES+24,79
345 FORN=0TO15
350 POKES+4,129
355 FORT=1TO250:NEXT:POKES+4,128
360 NEXT
365 POKES+24,0
367 Z=1
370 POKE53281,2:Z=Z+1
371 POKE53281,3
372 POKE53281,4
373 POKE53281,5
374 POKE53281,6
375 POKE53281,7
376 POKE53281,8
377 POKE53281,9
378 POKE53281,10
379 POKE53281,11
380 POKE53281,12
381 POKE53281,13
382 POKE53281,14
383 POKE53281,2:IFZ=50GOTO385
384 GOTO370
385 PRINT"                    GAME OVER"
386 PRINT"{CUR DN}{CUR DN}                HIT F
1 FOR A NEW GAME"
387 IFSC>HITHEN HI=SC
388 PRINT"{HOME}{CUR DN}{CUR RT}{CUR RT}
{CUR RT}{CUR RT}{CUR RT}{CUR RT}{CUR RT}
{CUR RT}{CUR RT}{CUR RT}{RVS ON} HIGH SC
ORE = "HI
390 GETNG$:IFNG$=""THENGOTO1
391 GOTO387
400 PRINT"{HOME}{CUR DN}{CUR DN}{CUR DN}
{CUR DN}{CUR DN}                    LANDED"
410 S=54272
415 FORL=0TO24:POKES+L,0:NEXT
420 POKES+14,5
425 POKES+18,16
430 POKES+3,1
435 POKES+24,143
440 POKES+6,240
445 POKES+4,65
450 FR=5389
455 FORT=1TO200
460 FQ=FR+PEEK(S+27)*3.5
465 HF=INT(FQ/256):LF=FQ-HF*256
470 POKES+0,LF:POKES+1,HF
475 NEXT
480 POKES+24,0
485 SC=SC+100:IFSC=500THENSC=1000
490 PRINT"{HOME}{CUR DN}{CUR DN}{CUR DN}
{CUR DN}{CUR DN}                    GET READY":
FORD=1TO1000:NEXTD:PRINT"{CLR}":GOTO135
600 POKE53281,0:POKE53280,0
605 PRINT"{CLR}"
610 PRINT"{HOME}{LT BLU}
R LANDER-64"                    LUNA
620 PRINT"{CUR DN}{CUR DN} IN THIS LUNAR
 LANDER GAME YOU MUST LAND YOUR SPACESHI
P ON";
621 PRINT" ONE OF THE FLAT BLACK STRIPS
OF LAND NEAR THE BOTTOM OF THE   SCREEN"
;
622 PRINT".YOUR SPEED MUST BE LESS THAN
200 AND YOU USE THE KEYS '<' TO MOVE ";
623 PRINT"YOUR   SHIP LEFT , '>' TO MOVE
YOUR SHIP RIGHT  AND 'SPACE' TO THRUST";
624 PRINT".EACH TIME YOU   LAND 100 IS
 ADDED TO YOUR SCORE.IF YOU   SCORE 500";
625 PRINT" A BONUS OF ANOTHER 500 IS
 ADDED TO YOUR SCORE.GOOD LUCK!!"
630 PRINT"{CUR DN}{CUR DN}
PACE' TO START"                HIT 'S
635 GETST$:IFST$=" "THENGOTO50
636 GOTO635
```

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there came the smell of honey
So off he went to find the
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their stings as teddy fills his
empty tum sweet melodys
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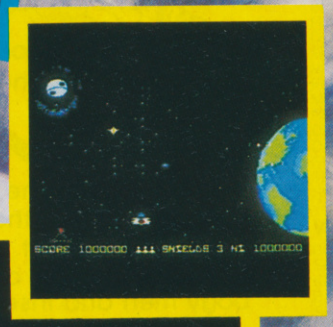

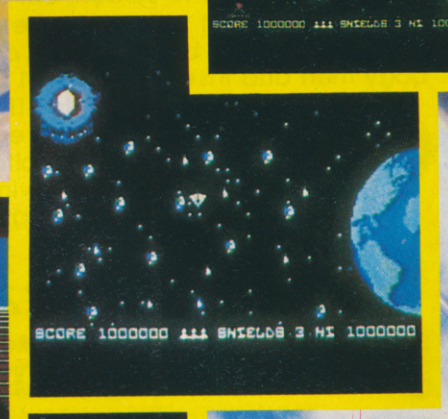

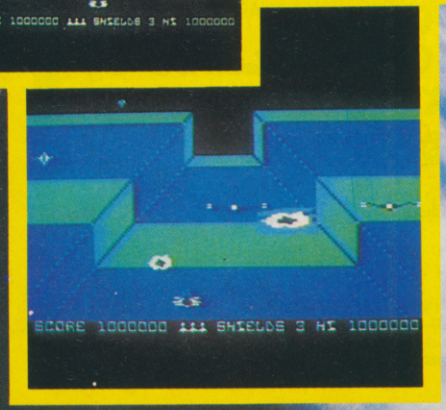

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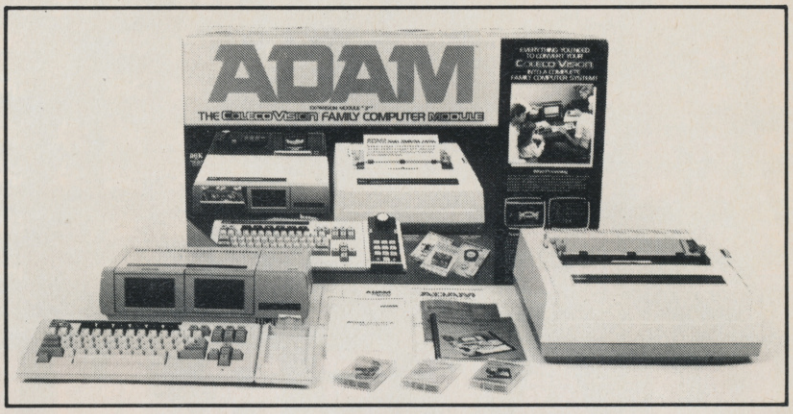

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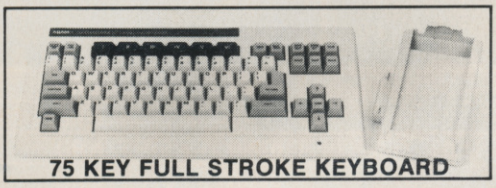

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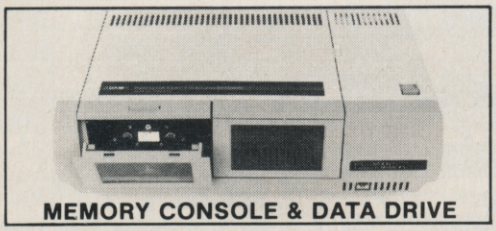
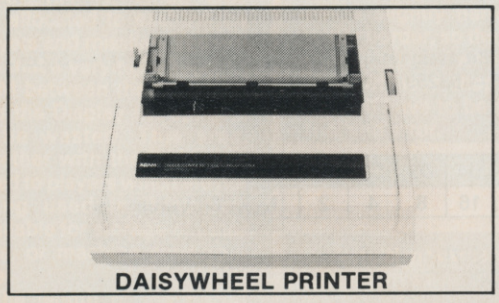


MEMORY CONSOLE & DATA DRIVE



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If you're looking for real value in a computer system, one which can handle anything from serious Word Processing to enhanced Colecovision style video games such as Buck Rogers, look no further. The Coleco Adam is here with a package which will make you wonder if you're dreaming when we tell you about it. A price breakthrough in computer systems, Adam is comprised of an 80K RAM memory console with a built-in 256K digital data drive; a professional quality, stepped and sculptured 75 key full-stroke keyboard; a letter quality daisywheel printer and a full word processing program built into the Console. Two additional pieces of software, Smart BASIC and also 'Buck Rogers - Planet of Zoom' (the ultimate in advanced video games), are included as well as a blank digital data pack. Adam can be used with any domestic colour Television set.*

MEMORY CONSOLE/DATA DRIVE: *The heart of the Adam system is the 40K ROM and 64K RAM memory console which combines with the 32K ROM and 16K RAM in Colecovision to give you a total of 72K ROM (including 24K cartridge ROM) and 80K RAM (expandable to 144K). Built into the memory console is a digital data drive which accepts Adam's digital data packs, a fast and reliable mass storage medium that is capable of storing 256K of information, that's about 250 pages of double spaced text! The console is also designed to accomodate a second optional digital data drive.

FULL STROKE KEYBOARD: The Adam keyboard has been designed as a professional quality keyboard that combines ease of use with an impressive array of features. It is stepped and sculptured for maximum efficiency and has 75 full stroke keys which include 6 colour coded Smart Keys which are redefined for each new application; 10 command keys which are dedicated to the word processing function, and 5 cursor control keys for easy positioning of the cursor at any point on the screen. You can attach a Colecovision controller to the keyboard to function as a numeric keypad for easy data entry. It can also be held like a calculator, a feature which makes working with numbers particularly easy. The joystick part of the hand controller can be used in the same way as the cursor control keys, to move the cursor around the screen.

LETTER QUALITY PRINTER: The Smart Writer letter quality daisywheel printer is a bi-directional 80 column printer which prints at a rate of 120 words per minute. It uses standard interchangeable daisywheels, so a variety of typestyles are available. The printer has a 9.5 inch wide carriage for either single sheets or continuous fan fold paper and uses standard carbon ribbons. It is comparable to many printers which cost as much as the total Adam package. The printer can be used either with the Adam's Smart Writer word processing program or as a stand alone electronic typewriter.

BUILT-IN WORD PROCESSOR: Adam comes with Smart Writer word processing built-in. This program is so easy to use that you only have to turn the power on and the word processor is on line and ready to go. Detailed instruction books are not necessary as the Computer guides you step by step, working from a series of Menu commands. It enables you to type in text, then completely edit or revise it with the touch of a few keys. Changes are readily made and a series of queries from the computer confirm your intentions, so that you can continuously double check your work as you type.

COMPATIBILITY WITH COLECOVISION: By using high speed interactive microprocessors in each of the modules, the Coleco Adam is designed to take additional advantage of both the 32K ROM and 16K RAM memory capability in the Colecovision. If you do not already own a Colecovision Console (£99 inc VAT), then you will need to purchase this when you initially purchase your Adam Computer package (£499 inc VAT), making a total purchase price of (£598 inc VAT).

WHAT IS COLECOVISION: Colecovision is one of the worlds most powerful video game systems, capable of displaying arcade quality colour graphics of incredible quality on a standard Colour TV set. The console (see picture bottom left) accepts 24K ROM cartridges such as Turbo and Zaxxon and is supplied with the popular Donkey Kong cartridge and a pair of joystick controllers. Colecovision has a range of licenced arcade hits available such as: Gorf, Carnival, Cosmic Avenger, Mouse Trap, Ladybug, Venture, Smurf, Pepper II, Space Panic, Looping, Space Fury, Mr Do, Time Pilot, Wizard of Wor and many others. So there you have it, Adam plus Colecovision the unbeatable combination. Send the coupon below for your FREE copy of our 12 page Colour brochure giving details on the complete Adam system.

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Rev 2

PLAYER MISSILES

The name conjures up thoughts of alien-zapping hardware but, as NIGEL FARRIER shows, these particular weapons provide a superior form of Sprite movement.

All Atari computers have provision for 4 *Players* and 4 *Missiles*. These are 'user defined' graphics characters, which can be moved over the screen display without affecting the 'picture' which is being displayed. Atari player/missiles are a superior implementation of the sprite concept. Player/ missiles however, have certain embelishments which are not normally found with Sprites.

Size and Resolution

Player/missile sizes and pixel resolution can be more easily expressed in terms of 'colour clocks' and 'scan lines'. As a point of reference, a single 'pixel' which has been plotted in GR.7 will have a resolution of 1 colour clock wide, by 2 scan lines high.

There are 2 options for vertical resolution and the choice should be made according to 'detail' required, and money available.

1) Single Line Resolution: This is the same vertical resolution as in GR.8 and requires 2K of RAM to be allocated for storage of P.M. data.

2) Double Line Resolution: This is the same vertical resolution as in GR.7 and requires 1K of RAM to be allocated for storage of P.M. data.

The hardware 'shadow register' SDMCTL, at 559 (decimal), is used to control the vertical resolution.

Poke 559, 62 for single line resolution.

Poke 559, 46 for double line resolution.

Although the vertical resolution selected will apply to all players and missiles, the horizontal resolution of each player or missile can be controlled. Each player has a normal horizontal resolution of 8 separate 'colour clock' sized pixels, whereas missiles are only 2 pixels wide. There are SIZEPO — SIZEP3, located at 53256 — 53259, which can be 'set up' as shown in fig.1.

Missile widths are all controlled by one register, called SIZEM, at 53260. Each pair of bits is used to control the size of 1 missile as shown in fig.2.

Memory Allocation

As previously stated, player/missile graphics require that an area of RAM be allocated for storage of P.M. data. This 'block' of RAM must start on a 1K boundary for double line resolution, or on a 2K boundary for single line resolution. The upper limit of free RAM is defined by the Display list, which varies in location according to the graphics mode in use, so first of all, the location of the Display list should be found by PEEKing the display list 'pointers'.

DLIST = PEEK(560) + 256*PEEK(561).

Obviously the Display list must not be overwritten by the P.M. data, so the 1K or 2K boundary must be selected accordingly. For convenience, table 1 gives the addresses of the 1K and 2K boundaries which may safely be used on 16K machines. The corresponding page number is also given, and this must be POKed into the PMBASE register at 54279, which tells the ANTIC 'chip' where to start retrieving the P.M. data.

Note that each 1K 'block' of RAM can be considered to consist of four 256 byte 'pages'.

D7	D6	D5	D4	D3	D2	D1	D0	
128	64	32	16	8	4	2	1	
SIZEPO — SIZEP3								Byte Value
NOT USED						0	0	0 = normal width pixels.
SIZEPO — SIZEP3								
NOT USED						0	1	1 = double width pixels.
SIZEPO — SIZEP3								
NOT USED						1	0	2 = normal width pixels.
SIZEPO — SIZEP3								
NOT USED						1	1	3 = quadruple width pixels

Fig. 1: Bit assignments for size registers SIZEPO — SIZEP3. (53256 — 53259)

D7	D6	D5	D4	D3	D2	D1	D0	
128	64	32	16	8	4	2	1	Bit No. / Bit Value
SIZEM								
M3				M2		M1	M0	
SIZEM								
0	0	0	0	0	0	0	1	
SIZEM								
0	0	1	1	0	1	0	0	

Byte Value
1 = Missile 0 double width, missiles 1–3 normal width.

52 = Missile 1 double width, missile 2 quadruple width, missiles 0 & 3 normal width.

Fig. 2: Bit assignments for size register SIZEM (53260)

Figure 3 shows some 'player' shapes drawn in single line resolution, and in both normal and double width modes for comparison. The cursor square is also shown to the same scale, to give an indication of the actual size of the players.

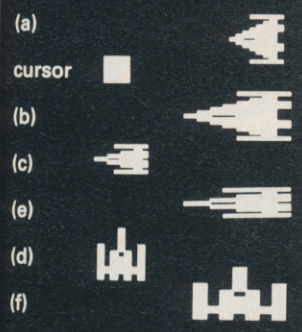

Fig. 3: Some Player Shapes In Single And Double Widths.

ister. The position registers are HPOSP0 – HPOSP3, at 53248 – 53251, for players, and HPOSM0 – HPOSM3, at 53252 – 53255, for missiles, and they hold the position of the pixels controlled by the left bit of a player/missile data byte, or pair of bits.

Since the registers can hold a value 0 – 255, this is the range of horizontal movement, with a distance of 1 colour clock between each position. The centre of the screen is at position 127/128.

The normal width of the display area — which we will call the Playfield — , is only 160 colour clocks wide, with a border on each side of about 50 colour clocks. This gives approx. 190 colour clocks as the total width of the T.V. screen, which means that there are about 33 colour clocks on either side of the screen, where a player/missile shape can be stored out of sight. You may find however, that your T.V. has a slightly narrower, or wider border, so the range of positions where a player/missile shape is visible will have to be found by trial and error.

Graphics Mode	DLIST address	1K Boundary	Page No.	2K Boundary	Page No.
GR.0	15392	14336	56	12288	48
GR.1	15710	"	"	"	"
GR.2	15872	"	"	"	"
GR.3	15950	"	"	"	"
GR.4	15690	"	"	"	"
GR.5	15210	13312	52	12288	48
GR.6	14210	12288	48	10240	40
GR.7	12194	11264	44	10240	40
GR.8	8272	7168	28	6144	24

Table 1: 1K and 2K boundary addresses.

Figure 4 shows how sections of the P.M. storage area are allocated to each of the players and missiles. You will see that a varying amount of RAM between the P.M. area and the Display list appears to be wasted. This area, together with the RAM allocated to players which are not being used is, however, available for storage of other data, or machine code routine.

The length of the BASIC program must be controlled, to ensure that the player areas are not overwritten by the BASIC code. This would result in some peculiar player shapes being displayed. Remember that GOSUBs and FOR — NEXT loops use the Run – Time Stack, which resides at the end of the BASIC program, and will use additional RAM when the program is RUNning.

Each player and missile has its own horizontal position register. Horizontal movement can easily be achieved by continuously changing the value in the appropriate reg-

Vertical movement of players and missiles is more difficult to achieve than horizontal movement. There are no vertical position registers, and therefore, players can only be moved vertically by moving the player data values from one byte to another, within the allotted RAM area. This means that, for smooth vertical movement, a machine code routine which can move data very quickly, is usually required.

Missiles are even more difficult to move vertically if there is more than one being displayed. Because the data for all four missiles is contained in 1 byte, if that data is moved, then all 4 missiles will move. To overcome this problem we must ensure that, when a missile is moved from one vertical position to another, only the relevant bits at the old position are cleared, and only the relevant bits at the new position are set, leaving the remaining bits unchanged. This process is called masking.

The use of machine code can be avoided by using more advanced programming techniques to assign the P.M. data area to a string, and the P.M. data to a sub string. String 'slicing' can then be used to move the data from one location to another. Listing 1 shows the BASIC code which will 'set up' the strings, and it can be included in your own programs, if there is enough free RAM available. Note that sub strings with different data values can be utilised to make 'instant' changes to the shape of a player. Listing 2 illustrates this, and if necessary, listings 1 and 2 can be combined.

The range of vertical movement is the same as the number of bytes allocated to each player, i.e. 256 or 128, and since the playfield is only 192 single scan lines high, once again, players can be moved off the screen in either direction.

If you feel that moving player/missile shapes vertically is a bit more difficult than it should be, then you should bear in mind that it is still much easier than trying to poke shapes directly onto the screen.

Player shapes are defined in the same way as normal characters, using 1 byte per line of pixels. But however, whereas normal characters have only 8 lines of pixels, each player, or missile, can have either 256 lines, or 128 lines, depending on the vertical resolution employed. Pixels can be 'lit' on any, or all, of these lines, by setting bits of the relevant P.M. data bytes. Figure 5 shows the corresponding byte values for a typical player shape.

Single Line Resolution

PMBASE + 0	NOT USED			
+ 768	M3	M2	M1	M0
+ 1024	PLAYER 0			
+ 1280	PLAYER 1			
+ 1536	PLAYER 2			
+ 1792	PLAYER 3			
+ 2048	FREE RAM			
VARIES	DISPLAY LIST			
VARIES	SCREEN RAM			

Double Line Resolution

PMBASE + 0	NOT USED			
+ 384	M3	M2	M1	M0
+ 512	PLAYER 0			
+ 640	PLAYER 1			
+ 768	PLAYER 2			
+ 896	PLAYER 3			
+ 1024	FREE RAM			
VARIES	DISPLAY LIST			
VARIES	SCREEN RAM			

Fig. 4: Player/Missile Memory Allocation

Missile shapes only require a pair of bits to define a line of 2 pixels, therefore a single byte contains the data for the corresponding lines of all 4 missiles, as shown in fig. 6.

Continued from previous page

D7	D6	D5	D4	D3	D2	D1	D0	Bit No.
128	64	32	16	8	4	2	1	Bit Value
								Byte Value
0	0	0	1	1	1	1	1	31
0	0	0	0	0	0	1	0	2
0	0	0	0	1	1	1	1	15
0	0	1	1	1	1	1	1	63
1	1	0	0	1	1	1	0	206
0	0	1	1	1	1	1	1	63
0	0	0	0	1	1	1	1	15
0	0	0	0	0	0	1	0	2
0	0	0	1	1	1	1	1	3

Fig. 5: Data Values For A Typical Player Shape

D7	D6	D5	D4	D3	D2	D1	D0	Bit No.
128	64	32	16	8	4	2	1	Bit Value

M3		M2		M1		M0		Missile No. / Byte Value	
0	0	0	0	0	0	0	1	1	
0	0	0	0	0	0	1	0	2	Missile 0 defined.
0	0	0	0	0	0	0	1	1	
0	0	0	1	0	0	0	0	16	Missile 2 defined.
0	0	1	0	0	0	0	0	32	
0	0	0	1	0	0	0	0	16	
0	1	0	1	0	1	0	1	85	
1	0	1	0	1	0	1	0	160	All missiles
0	1	0	1	0	1	0	1	85	defined.

Fig. 6: Data Values For Missiles.

Colours

A player/missile shape can be given only one of the 256 ATARI colour/brightness values available. Multi coloured shapes can only be achieved by overlapping players or missiles, which each have a different colour, or by using Display list Interrupts to change the colour of complete lines of player/missile pixels.

Each player has its own colour register, COLPMO — COLMP3, at 53266 – 53269, with 'shadow' registers PCOLRO – PCOLR3, at 704 – 707. Missiles however, take their colour from the corresponding player register.

The value for the required colour is POKed into the relevant shadow register. This is because the Operating System updates all the hardware registers during the Vertical Blank period, using the values which are contained in the shadow registers. You should therefore, always use the shadow registers, except when a register is to be changed from within a Display — list Interrupt routine.

Refers to Table 2 for the values of the various colour/brightness combinations. The lowest values for each colour give zero brightness, i.e. black, and the highest values give maximum brightness, i.e. white.

VALUE	COLOUR
0	GREY
16	GOLD
32	ORANGE
48	RED - ORANGE
64	PINK
80	PURPLE - BLUE
96	PURPLE - BLUE
112	BLUE
128	BLUE
144	LIGHT - BLUE
160	TURQUOISE
176	GREEN - BLUE
192	GREEN
208	YELLOW-GREEN
224	ORANGE-GREEN
240	LIGHT - ORANGE

LISTING 1

```
   19 REM PLAYER MISSILE MOVEMENT USING
STRINGS
   20 DIM A$(256):REM NO. OF BYTES PER P
LAYER IN SINGLE LINE RESOLUTION
   30 DIM B$(11): REM 9 BYTES FOR SHAPE
SHOWN IN FIG.5 PLUS A TRAILING SPACE TOP
 & BOTTOM FOR ERASING
   40 X=X+1:READ A:IF A<>-1 THEN B$(X,X)
=CHR$(A):GOTO 40:REM READ IN THE SHAPE
   50 DATA 0,31,2,15,63,206,63,15,2,31,0
,-1
   60 GRAPHICS 6:REM MUST SET GRAPHICS M
ODE FIRST
   70 POKE 54279,40: REM SET PMBASE TO S
UIT GR.6 (SEE TABLE 1)
   80 POKE 559,62:REM SINGLE LINE RESOLU
TION
   84 POKE 53277,3:REM THIS ENABLES PM G
RAPHICS
   85 POKE 704,56:REM MAKE PLAYER COLOUR
 MID-RED
   86 FOR N=40*256+1024 TO N+256:POKE N,
0:NEXT N: REM THIS CLEARS PLAYER 0 RAM
   90 REM FIND START OF VARIABLE VALUE T
ABLE
  100 VTAB=PEEK(134)+256*PEEK(135)
  110 REM NOW FIND START OF STRING/ARRAY
 AREA
  120 AREA=PEEK(140)+256*PEEK(141)
  130 REM CALCULATE OFFSET FROM START OF
 AREA TO START OF PLAYER 0 RAM
  140 OFFS=40*256+1024-AREA: REM SEE FIG
.4
  150 REM CHANGE THIS TO A 2 BYTE FORMAT
  160 HI=INT(OFFS/256):LO=OFFS-HI*256
  170 REM NOW INSERT THESE VALUES INTO 3
RD AND 4TH BYTES OF VTAB...
  180 REM WHICH HOLD OFFSET FROM START O
F STRING/ARRAY AREA TO START OF A$ DATA
  200 POKE VTAB+2,LO:POKE VTAB+3,HI
  210 Y=150:REM VERTICAL POSITION TO STA
RT
  220 X=200:REM HORIZONTAL POSITION TO S
TART
  230 HINC=1:REM HORIZONTAL INCREMENT
  240 VINC=1:REM VERTICAL INCREMENT
  245 REM TRY CHANGING HINC TO 2 OR 3
  250 POKE 53248,X:REM MOVE PLAYER 0
  260 A$(Y,Y+11)=B$:REM PUT OUR SHAPE IN
TO THE PLAYER AREA...WITH THE TOP BEING
 AT POSITION Y
  270 X=X-HINC:Y=Y-VINC:REM SET NEXT HOR
IZ. AND VERT. POSITIONS
  280 IF X>247 OR X<3 THEN HINC=-HINC
  290 IF Y>243 OR Y<2 THEN VINC=-VINC
  295 REM SEE IF YOU CAN WORK OUT WHY TH
ESE PARTICULAR LIMITING VALUES WERE SET.
  300 GOTO 250
```

LISTING 2

```
   10 REM CHANGING PLAYER SHAPE WITH STR
INGS
   20 DIM A$(256)
   30 DIM B$(7),C$(7)
   40 X=X+1:READ A:IF A<>-1 THEN B$(X,X)
=CHR$(A):GOTO 40
   50 Y=Y+1:READ A: IF A<>-1 THEN C$(Y,Y
)=CHR$(A):GOTO 50
   60 DATA 8,25,59,207,59,25,8,-1,0,1,9,
255,127,29,4,-1
   70 GRAPHICS 6
   80 POKE 54279,40:POKE 559,62:POKE 532
77,3:FOR N=40*256+1024 TO N+256:POKE N,0
:NEXT N
   90 VTAB=PEEK(134)+256*PEEK(135)
  100 AREA=PEEK(140)+256*PEEK(141)
  110 OFFS=40*256+1024-AREA
  120 HI=INT(OFFS/256):LO=OFFS-HI*256
  130 POKE VTAB+2,LO:POKE VTAB+3,HI
  140 X=210:Y=128
  150 POKE 53248,X
  160 A$(Y,Y+7)=B$:POKE 704,140:FOR N=1
TO 30:NEXT N: X=X-2:POKE 53248,X:FOR N=1
TO 30:NEXT N
  165 X=X-2:POKE 53248,X
  170 A$(Y,Y+7)=C$:POKE 704,136:FOR N=1
TO 30:NEXT N: X=X-2:POKE 53248,X:FOR N=1
TO 30:NEXT N
  180 IF X<20 THEN X=210
  185 GOTO 160
  190 REM WITH A BIT OF IMAGINATION YOU
WILL SEE A SMALL JET 'ROLLING' WITH THE
SUN GLINTING OFF THE UPPER SURFACES
```

CONTROL YOURSELF!

HOW TO ENTER

Suffering from digit figit? Button-pushers' blisters getting you down? BIG K brings you fast relief with this issue's brill competition where you can win world famous Wico joysticks and track balls to improve your game — and soothe those fatigued fingers.

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WHAT TO DO

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L. You can concentrate on the screen, not your fingers.

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BIG K

ARCADE ALLEY

GERRON YER GALACTIBIKE...

. . . And take part in the latest Hot Wheels From Outer Space fantasia — Williams' *Star Riders*. PAUL RAMBALI dusted off his skid-lid, fumigated his leathers and boldly went where even Barry Sheene would think twice before going. JEFF VEITCH took the pictures.

RIGHT FROM the start, I could smell a rat.

The 'Start' is the Cosmodrome, with its tall banks of spectators rising up on either side. Maybe it was the Robofficial, an irksome little satellite droid with one eye that hovered above leaving trails of corny computerese letters. G-E-T READY . . . It was a six second countdown; I fingered the Turbo switch, turned and spat at the nearest rider, and twisted the throttle back hard.

The forward surge was, as usual, satisfying. It took us out of the Cosmodrome and into the first stretch of Cosmotrack. Then I saw them. Huge blue cubes floating in the sky as far as the eye could see — which, with the benefit of a telescreen, is pretty far. They hung like clouds over the Cosmotrack against a bright yellow sky. A glance down at a planet indicator revealed it to be Cubitania. I knew then that this was the work of an **artist.**

And it looks like the artist had a field day on this one. I was informed by the Robofficial that the game would take me to 'strange faraway planets'. Cubitania, Hexagonia, Crystalia, Stalactica . . . When you've seen them all: yellow hexagons, mauve pyramids, brown stalactites . . . it all looks very pretty, if that's your cup of rocket fuel, but I didn't come all the way to outer-space to admire the scenery. Nope, I came to race.

Williams' **Star Rider** promised enhanced thrills. Quite apart from the quality of the real-time video simulation, I would get to ride a rocket bike. I had never ridden one before and there are some notable differences. You don't feel the wind in your face due to the telescreen in front and also, I suppose, because there's no air in space anyway. Sat astride a rocket, you do, however, feel a tiny bit demonic, a feeling enhanced by the handy force field surrounding the Cosmotrack which prevents any spills into the void and lends an invincible and thus somewhat reckless mood to one's ride.

Competing against Thunderbolt ("The Cosmic Champ"), Red Hawk ("Hard to pass"), Sidewinder ("The Snaky One"), and Gold Jet ("The Rookie"), I relied on the old instincts: brake as late as possible, accelerate into the bends, come out with your thumb on the turbo switch, and hang on tight. Pass Gold Jet and Sidewinder on the bends but leave the other two for the straights — they know the tricks. And that Red Hawk is a cool one: throws you a sideways glance as he races past, despite a subsidiary rear-view telescreen. Old habits die hard, I guess.

I qualified — no problem. Won the first race too, though there was one sticky moment when a cubic cloud strayed onto the Cosmotrack and proved to be not vapour at all but solid as rock. "I think you have The Right Stuff," said the cyclops Robofficial, as I rolled into the cheering Cosmodrome. Thanks.

The next stretch, across Hexagonia, wasn't so easy. I had to race it twice to get the vital first place. "Excellent," said Cyclops-face, "You're bound for the stars." And I was.

So there I was, streaking through the Milky Way, giving that Red Hawk a face full of afterburn, when my interplanetary credits ran out. I came back to Earth with a jolt. Damn that mechanic! He was supposed to have fixed the brakes on my saucer last week . . .

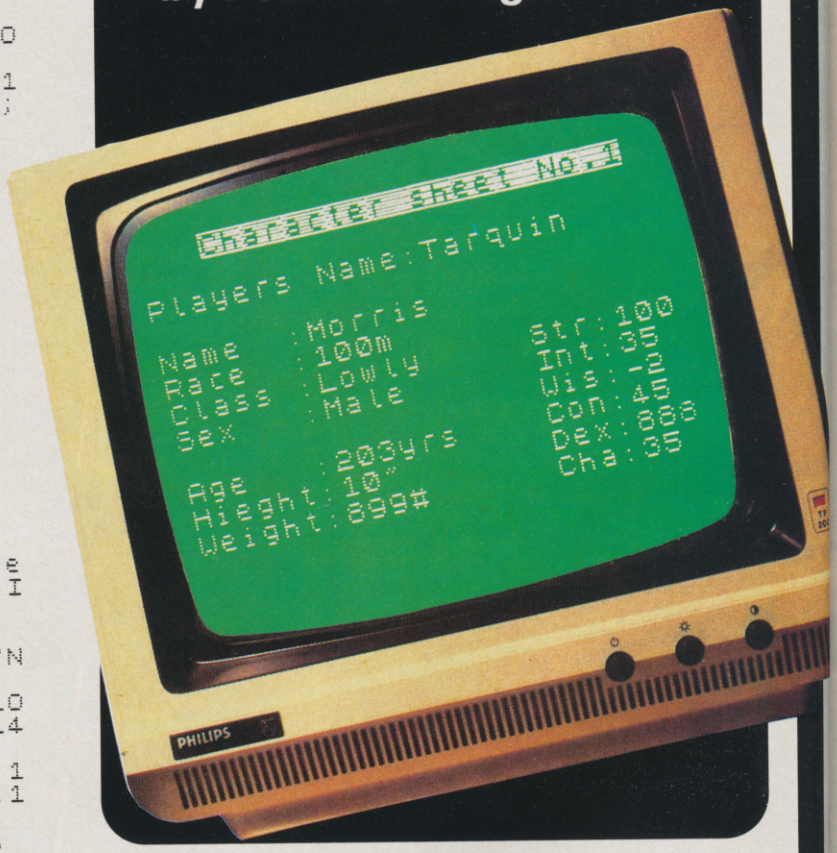
This superb utility is purpose-built to link computing with the Dungeons & Dragons role-playing mob in what is, for games software, a new way.

A database, in business software, can be compared to a card index divided into 'fields'. Filling out the 'cards' with relevant categories of information is the first step; the database can then be manipulated to keep track of a role-playing session's 'characters'.

The chief user of this computerised record-keeping tool will be the session's Dungeon Master. As players

for SPECTRUM 48K

by Peter Fleming




```
    1 REM Dungeon Master's
    2 REM Character Sheet
    3 REM
    4 REM Written By
    5 REM Peter R. Fleming
    6 REM
    8 GO SUB 9900
    9 LET cls=9000
   10 REM Start
   20 INK 0: PAPER 7: BORDER 7: F
LASH 0: BRIGHT 1: OVER 0: INVERS
E 0: GO SUB 9050
   22 GO SUB cls
   30 PRINT AT 3,6; INVERSE 1; IN
K 3;"D.M. Character Sheet"
   35 PRINT AT 5,3;"Options:-": P
LOT 24,127: DRAW 71,0
   40 FOR x=1 TO 7: PRINT AT x*2+
5,3;o$(x): NEXT x
   50 LET a$=INKEY$: IF a$="" OR
a$<CHR$ 49 OR a$>CHR$ 55 THEN GO
 TO 50
   60 LET a=(CODE a$)-48: BEEP .1
,5: PRINT AT a*2+5,3; INVERSE 1;
o$(a): GO TO a*500
  190 REM Varible set-up & SAVE
  200 DIM p$(15,13)
  205 DIM a(15,7)
  210 DIM s$(15,6)
  215 DIM r$(15,9)
  220 DIM h(15,3)
  225 DIM c$(15,9)
  230 DIM q$(15,9)
  235 DIM w$(15,20)
  240 DIM o$(7,26)
  250 GO SUB 1405
  260 GO SUB 9850
  270 SAVE "Character" LINE 1
  280 PRINT "Verify": VERIFY ""
  290 PRINT "Verified O.K."
  300 STOP
  500 REM List character sheet
  501 GO SUB 505
  502 PRINT AT 18,2; FLASH 1;"Pre
ss key to return to menu.": IF I
NKEY$="" THEN GO TO 502
  503 BEEP .1,5: GO TO 22
  505 GO SUB cls: PRINT AT 3,3;"N
o.  Player       Character"
  510 PLOT 24,143: DRAW 23,0: PLO
T 64,143: DRAW 47,0: PLOT 152,14
3: DRAW 71,0
  515 FOR z=1 TO 15: PRINT OVER 1
;AT z+4,3;z;TAB 8;p$(z);AT z+4,1
9;q$(z): NEXT z
  520 INPUT "Input character No.
";player: IF player>15 OR player
<1 THEN GO TO 520
'525 CLS
  530 GO SUB 9050
  535 PRINT AT 3,6; INVERSE 1; IN
K 3;"Character sheet No.";player
  540 PRINT AT 5,3;"Players Name:
";p$(player);AT 7,3;"Name  :";q$
(player);AT 8,3;"Race  :";r$(pla
yer)
  545 PRINT AT 9,3;"Class :";c$(p
layer);AT 9,20;"Str:";a(player,1
);: IF a(player,2)<>0 AND a(play
er,2)<>100 THEN PRINT "/";a(play
er,2)
  550 IF a(player,2)=100 THEN PRI
NT "/00"
  555 PRINT AT 10,3;"Sex   :";s$(
player);AT 10,20;"Int:";a(player
,3);AT 11,20;"Wis:";a(player,4);
AT 12,3;"Age   :";h(player,1);"y
rs"
  560 PRINT AT 12,20;"Con:";a(pla
yer,5);AT 13,3;"Hieght:";h(playe
r,2);"""";AT 13,20;"Dex:";a(playe
r,7);AT 14,3;"Weight:";h(player,
3);"#";AT 14,20;"Cha:";a(player,
3)
  600 RETURN
1000 REM Adjust character sheet
1005 GO SUB cls: PRINT AT 3,3;"N
o.  Player       Character"
1010 PLOT 24,143: DRAW 23,0: PLO
T 64,143: DRAW 47,0: PLOT 152,14
3: DRAW 71,0
1015 FOR z=1 TO 15: PRINT AT z+4
,3;z;TAB 8;p$(z);AT z+4,19;q$(z)
: NEXT z
1020 INPUT "Character No.";playe
r
1030 GO SUB cls
1035 PRINT AT 3,3;"Choose which
adjustment"
1040 PLOT 24,143: DRAW 183,0
1045 FOR z=1 TO 15: PRINT AT z+4
,3;z;TAB 7;w$(z): NEXT z
```

take turns he will have access to each character's prowess sheet on his VDU. Points gained or lost, or status altered, can then be entered permanently into the database.

Although designed for Advanced D&D it can easily be converted for other systems such as T&T. Once the program has been typed in then RUN 200 which will set up all the variables. SAVE "Character" LINE 1 will auto run it on reloading. Use GOTO 1 to restart at any point.

```
1050 INPUT "Enter adjustment No.
";adjust: IF adjust<1 OR adjust>
15 THEN GO TO 1050
1055 PRINT AT adjust+4,3; FLASH
1;adjust;TAB 7;w$(adjust)
1060 GO SUB adjust*10+1100
1065 INPUT "Any more Adjustments
? ";z$: IF z$="y" OR z$="Y" THEN
 PRINT AT adjust+4,3;adjust;TAB
7;w$(adjust): GO TO 1050
1070 IF z$="n" OR z$="N" THEN GO
 TO 22
1075 GO TO 1065
1100 STOP
1110 INPUT p$(player)
1119 RETURN
1120 INPUT q$(player)
1129 RETURN
1130 INPUT r$(player)
1139 RETURN
1140 INPUT c$(player)
1149 RETURN
1150 INPUT s$(player)
1159 RETURN
1160 INPUT h(player,1)
1169 RETURN
1170 INPUT h(player,2)
1179 RETURN
1180 INPUT h(player,3)
1189 RETURN
1190 INPUT a(player,1)
1199 RETURN
1200 INPUT a(player,2)
1209 RETURN
1210 INPUT a(player,3)
1219 RETURN
1220 INPUT a(player,4)
1229 RETURN
1230 INPUT a(player,5)
1239 RETURN
1240 INPUT a(player,6)
1249 RETURN
1250 INPUT a(player,7)
1259 RETURN
1400 DATA "Player's Name","Chara
cter's Name","Race","Class","Sex
","Age","Hieght","Weight","Str",
"Xstr","Int","Wis","Con","Dex","
Cha"
1405 RESTORE 1400: FOR z=1 TO 15
: READ w$(z): NEXT z
1410 RETURN
1500 REM Copy character sheet
1505 GO SUB 505
1510 PRINT AT 18,4; FLASH 1;"Do
you want this copied?"
1515 LET z$=INKEY$: IF z$="n" OR
 z$="N" THEN BEEP .1,5: GO TO 50
2
1520 IF z$="y" OR z$="Y" THEN BE
EP .1,5: GO TO 1530
1525 GO TO 1515
1530 PRINT AT 18,4;TAB 28
1535 COPY
1540 GO TO 502
2000 REM Enter new character
2005 GO SUB cls
2010 PRINT AT 3,6; INVERSE 1; IN
K 3;"New character sheet"
2015 PRINT AT 5,3;"Please enter
number of";AT 6,3;"character she
et you wish";AT 7,3;"to use. If
you wish to use";AT 8,3;"the fir
st available sheet";AT 9,3;"then
 just press enter."
2020 INPUT LINE z$: IF z$<>"" TH
EN IF VAL z$>15 OR VAL z$<0 THEN
 GO TO 2020
2025 IF CODE z$<>0 THEN LET play
er=VAL z$: GO TO 2040
2030 FOR z=1 TO 15
2035 IF a(z,1)<>0 THEN NEXT z
2040 LET player=z
2045 GO SUB cls
2050 PRINT AT 3,6; INVERSE 1; IN
K 3;"New character sheet"
2055 PRINT AT 5,3;"Players Name:
";AT 7,3;"Name  :";AT 8,3;"Race
 :";AT 9,3;"Class :           Str
:";AT 10,3;"Sex   :           Int
:";AT 11,20;"Wis:";AT 12,3;"Age
 :           Con:";AT 13,3;"Hieg
ht:          Dex:";AT 14,3;"Weig
ht:          Cha:"
2060 PRINT AT 18,3; FLASH 1;"Pla
yers Name?": INPUT p$(player): P
RINT AT 5,16;p$(player)
2065 PRINT AT 18,3; FLASH 1;"Cha
racters Name?": INPUT q$(player)
: PRINT AT 7,10;q$(player)
2070 PRINT AT 18,3; FLASH 1;"Cha
racters Race?": INPUT r$(player)
: PRINT AT 8,10;r$(player)
2075 PRINT AT 18,3; FLASH 1;"Cha
racters Class?": INPUT c$(player
): PRINT AT 9,10;c$(player)
2080 PRINT AT 18,3; FLASH 1;"Cha
racters Sex?"; FLASH 0;" ": INP
UT s$(player): IF s$(player,1)="
F" OR s$(player,1)="f" THEN LET
s$(player)="Female": GO TO 2095
2085 IF s$(player,1)="M" OR s$(p
layer,1)="m" THEN LET s$(player)
="Male": GO TO 2095
2090 GO TO 2080
2095 PRINT AT 10,10;s$(player)
2100 PRINT AT 18,3; FLASH 1;"Cha
racters Age?": INPUT h(player,1)
: IF h(player,1)<1 THEN GO TO 21
00
2102 PRINT AT 12,10;h(player,1);
"yrs"
2105 PRINT AT 18,3; FLASH 1;"Cha
racters Height?": INPUT h(player
,2): IF h(player,2)<1 THEN GO TO
 2105
2107 PRINT AT 13,10;h(player,2);
"'"
2110 PRINT AT 18,3; FLASH 1;"Cha
racters Weight?": INPUT h(player
,3): IF h(player,3)<1 THEN GO TO
 2110
2112 PRINT AT 14,10;h(player,3);
"#"
2115 PRINT AT 18,3; FLASH 1;"Cha
racters Attributes?": INPUT "Str
:";a(player,1): PRINT AT 9,24;a(
player,1)
2120 IF a(player,1)=18 THEN INPU
T "Exceptional Str:";a(player,2)
: PRINT AT 9,26;"/";a(player,2)
2125 INPUT "Int:";a(player,3): P
RINT AT 10,24;a(player,3)
2130 INPUT "Wis:";a(player,4): P
RINT AT 11,24;a(player,4)
2135 INPUT "Con:";a(player,5): P
RINT AT 12,24;a(player,5)
```


Continued on page 104

MSX – HOLDING BACK THE MICROS OF THE FUTURE?

BY THE TIME you read this assuming all has gone to plan, the Yen has remained buoyant, and there's been no Third World War — the first consignment of the fabled MSX computers should just about be reaching the shops.

On the other hand, given the habitual delivery dates of the computer business, it's quite on the cards that, as you read this, the first consignment of the fabled MSX computers will be stuck on a freighter somewhere East of Suez. One thing's (more-or-less) for certain: the stuff will be here any day now, so just in case your head's been stuck in a barrel of tar these last few months . . . here's the very latest word in pre-launch updates.

THE STORY SO FAR

INVENTIVE NIPPONESE electronics conglomerates, distressed at their failure to blag a piece of the world home-computer action on a par with their resources and talents, decide to rationalise said home-computer scene with an entirely logical and (in view of the Duelling Formats situation) necessary move: originate an agreed standard, by which a common system architecture and operating system will allow ANY manufacturer joining the Ring to make and sell hardware, bolt-ons and software all of which will run without glitches on ANY OTHER (rival) machine.

A deal is struck between said Japanese electronics giants and existing American firmware giant Microsoft, to be called MSX. Companies rush to sign up, including JVC, Sony, Mitsubishi (makers of the wartime Zero fighter — there's food for thought), Toshiba, Hitachi, Sanyo and others, including the sole American hardware participant, Spectravideo. All these companies are to make the hardware and software while Microsoft are to design the firmware (the operating system, architecture and BASIC).

THE BAD NEWS

THE BAD news is that the standard chosen is, by any benchmark, an elderly one: the Z80 CPU (current retail price in the UK: £5.00). Nothing wrong with this product of the Zilog Corp., of course: it powers the Spectrum for starters and no dude wishing to hook up to CP/M (there *are* still some) can do so without a Z80 somewhere in his system (which is why Acorn have produced their Z80 Second Processor for the Beeb). Trouble is, using Z80s means you can address a maximum of 64K of memory. Definitely Last Year's Thing, in view of the advent of the 68000 series of 16/32-bit CPUs which of course can handle simply scads of memory.

THE GOOD NEWS

THE GOOD news is that the Z80 powers Britain's most popular computer ever — said Sinclair Spectrum — and therefore conversion of existing Spectrum progs to the MSX standard is a relatively simple matter: which in turn means that a very great many of the more potent Brit software houses have already declared their faith in the MSX concept, and for the last six months have been converting perennials and writing new stuff to fit it. No doubt it was because of this Z80 dominance that the Japanese decided to use the UK as THE world testbed for the MSX in the first place; the Americans appear dithery about the concept, and besides, the US scene is dominated by the Z80's great rival chip — the 6502 (as seen in Apple, Atari, CBM 64 and others). So whether or not MSX takes over the world will depend to a huge extent on whether it takes over the UK. You have been warned.

WHERE WILL THE AXE FALL?

AS THE MSX machines are all priced around the £200 mark, and boast of 64K of memory, it seems clear that they're aimed at the first-time buyer: folks

Any moment now the first MSX all-singing, all-dancing, all-compatible machines will be in your local store. But how badly do we need this "new standard"? And who, if anyone, will benefit?

By TONY TYLER

who would otherwise buy 64s, Enterprises, Electrons and Oric Atmae. Which naturally means that these machines are — theoretically at least — in danger from the new wave.

It's probably true that Commodore stands the best chance of all of weathering this new Pearl Harbor. After all, with all its faults the 64 is THE World Machine, and anybody who already owns one is highly unlikely to ditch it in favour of a new machine with (to them) an unfamiliar processor and only the same memory . . . unless the other attractions of MSX — the built-in facilities for Peripheral Overkill, video, stereo, music, etc. — tempt them away. As for the other machines . . . it's hard to say. Acorn's Electron has now established itself, and Oric can probably do without Brit sales altogether, being Big In France. Enterprise? It looks as pretty as any MSX machine, and will expand in as many ways, while its memory possibilities appear to be much higher.

The real potential for MSX appears to lie with those punters who have still not bought any sort of computer at all: for them, the massive intercompatibility, the sexy looks and the proven record of Nip-Ware generally may well (as the MSX folks hope) clinch any number of over-the-counter deals.

HARDWARE

AT THE time of writing, only one (count it) machine — a Toshiba HX-10 — has been made available to computer magazines for hands-on experience. (The SAME Toshiba HX-10!) In due course our turn came around; and this is what we found.

The machine is low, flat and pretty, about the proportions of the Beeb in all dimensions save front-to-back. It has a full-stroke keyboard with slightly rattly keys (all those journalists thumping away are probably bad news in the wear-and-tear departments). Several things stand out: the sensible arrangement of arrow keys; the use of colour-coding; the five (shiftable) function keys; and the i/o ports for video and stereo, clear signs of bolt-ons and interfaces to come; and the large ROM port on the top right of the machine.

No manual accompanied our (everybody's) Toshiba, so we had to grope our way around a bit. Power-up produces the Microsoft MSX logo, followed by a pale blue Atari/CBM type screen, with keyword labels (produced by the function keys) along the bottom of the screen. Typing in is fast and easy — and, despite the rattly keys, precise and pleasant. The BASIC is recognisably Microsoft, extremely user-friendly, and the editor is slick and fast (Atari-style). Arrow keys move the cursor around the screen very quickly without the use of Control.

There are 16 colours, defined by the COLOR statement; sprites of potentially huge size, defined by the SPRITE statement; and four screen modes: two text, one hi-res (256 x 192), and one multi-colour mode where all 16 colours can be put on the screen at one time on a 64 x 48 grid. The 32 possible sprites are stored in the 32K of ROM.

All this makes the reviewed machine (at least) very Commodore-like in spec., and considerably better in looks and in the not insignificant matter of the BASIC.

SOFTWARE

REPORTS RECEIVED from the Land of the Rising Yen indicate that, in the matter of games so far produced for the MSX machines (on ROM and cassette), the Japanese have come up with their usual set of beautifully-coded clunkers: blood and thunder, childish and deeply unsatisfactory. "They're terrible," Quicksilva's Mark Eyles recently told BIG K, "but what we and other British software companies are doing with the machines will change all that." QS of course are deeply committed to supporting MSX (they've had an early machine for six months now), as are Thorn-EMI (Creative Sparks), Virgin, Ocean, Kuma, Artic, CDS, Bug-Byte, and Silversoft. With others to follow, no doubt, Kuma already have a utility out, and other houses are variously planning release of their first titles just before Christmas.

CONCLUSIONS

THE CYNICAL view is that while compatibility is a consummation devoutly to be wished, the Z80/64K standard is a heavy case of too-little-too-late (an MSX II based on the 68000 and 128K would be something else again). Also, the sexy packaging and the price all combine to make the MSX machines a first-user's choice. So it seems certain that anybody who, at the time of writing, doesn't yet own a computer but wishes they did, may well go in for it in an increasingly big way (this represents a consensus of views in the industry as well). However the MSX standard holds little of excitement for those of you (most of you) who already own a machine. Besides, there's the viewpoint that by fossilising operating system standards around an elderly if useful chip and an upper memory limit of 64K, the MSX people are actually holding back the pace of innovation. Then again, it could be said that the pace of innovation is so fast, and obsolescence such a built-in factor for ANY new computer, that for the sake of the poor punter (who has to pay for it all at the end of the day), it's just as well that somebody has at last taken a stand.

This time next year we'll know all the answers . . . and by then, no doubt, we'll be starting to hear about MSX II — and the whole business will be starting up all over again.

WHAT WOULD YOUR MSX6 SPEC. BE?

Imagine you're in the enviable position of being able to dictate a new, all-purpose world personal computer standard — to cost no more than £300.

Z80? 6502? 6809? 68000? 8088?

64K? 128K? Or perhaps 256K (to take advantage of the new generation of chips)?

Draft your requirements, including as much other info (i/o ports, bus parameters, etc.), plus a short written explanation of your thinking, and send it — with a sketch if you like — to: BIG K (msx), IPC Magazines, Kings Reach Tower (2035), Stamford St., London SE1 9LS.

The best ideas will get printed, and their originators will get a lucky dip from the BIG K MYSTERY SOFTWARE HOARD. So be sure to include details of any computer(s) you own . . .

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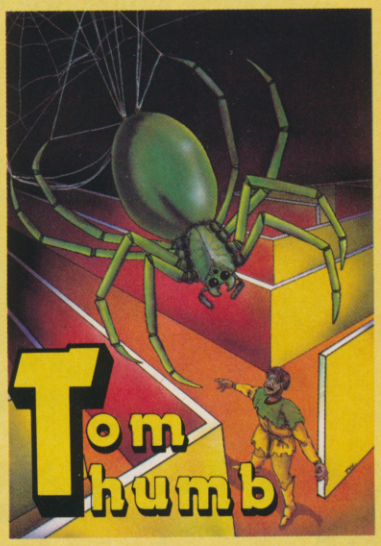

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Atari User, July 84

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Your 64, June 84

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Acorn User, July 84

"(SNOWBALL). This is another imaginative, massive-scaled immensely enjoyable adventure from those experts down at Level 9 Computing."

Your Computer, March 84

...of the year.
...his
...ur
...
...ptember 83

Adventure Quest is the second in Level 9's acclaimed Middle Earth trilogy, though it can be played by itself.

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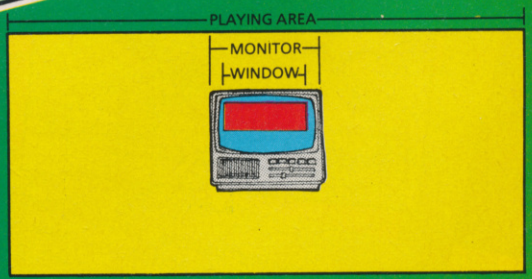

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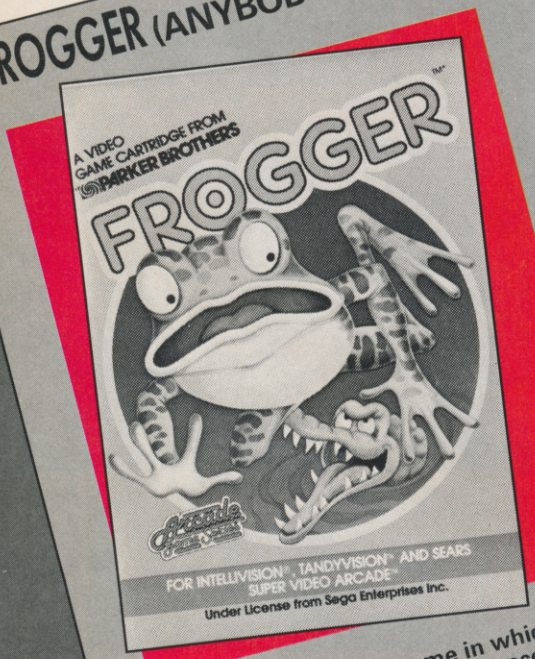
Once in a while, a computer game arrives at the BIG K offices that is so splendid, formidable and exquisitely designed that we sink to our knees in awe before dashing off to pen a rave review. Then there's the other kind . . .

Connoisseurs of the Infinite: STEVE KEATON, RICHARD BURTON, NICKY XIKLUNA, KIM ALDIS and TONY TYLER

FROGGER (ANYBODY'S)

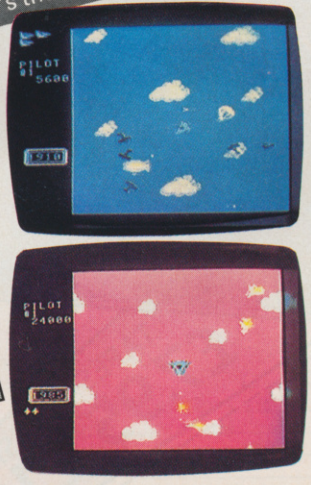


Completely loathsome game in which frogs are squashed on roads and then — unaccountably — drown in rivers. Eye-stretching if not exactly mind-bending, what with horizontal bars of colour moving in opposite directions like a zebra on acid.

Have you noticed how it's only the most obnoxious 9-year-olds who are any good at *Frogger*? As it happens, I'm rather keen on pondlife and the sight of a squashed frog on my local main drag fills me with horror and angst. As it should you. Consign this amphibian to oblivion. — **T.T.**

BUCK ROGERS & THE PLANET OF ZOOM (CBS-COLECO)

Sure, the guy's a vintage thirties space hero — second cousin to the great Flash (Gordon), but after a stab at this as far as I'm concerned Buck is a four-letter word. A lame Trench remake with a desert bit and a space bit in the middle, *BR and the Planet of Z* augured badly — as the debut it was — for Coleco's new Adam computerette. Although I know it wasn't written in BASIC, it COULD have been written in BASIC and as far as I'm concerned (thank you, Arthur Scargill) would probably have been better if it HAD been written in BASIC. Apart from which, it takes a whole tea-break to load. Where's the sense in that? — **T.T.**



TIME PILOT (CBS-COLECO)

*Remember the vintage arcade game (can't remember who by) where two biplanes wheeled and soared in the dawn Flanders sky (it says here), potting each other? An easy seven years ago, wasn't it? Atari used it as the basis for the Combat freebie you once got with a VCS; now here it is again. What was ace seven years ago has mellowed with age. Wheel and soar, yawn and bore, nod out, drift away and dream of pink sugar houses. Almost fit for the Adam. — **T.T.***

JUMBO JET PILOT (THORN-EMI)

Most farcical flight sim in the western hemisphere, this early and vintage turkey from the (then) Thorn group provided absolutely zilch inside the best packaging ever seen. Apart from the control panel — which, though digital, was functional — the thing is so unrealistic as to be laughable. Start takeoff and EIGHT MINUTES LATER you reach the apparently necessary takeoff speed of, wait for it, 270 mph. Translating this into real terms, by my reckoning, and starting at runway 3 of Heathrow, you'd be at the infamous Talgarth Road traffic jam before wheels-up. Tough on the commuters! After this promising start, you then find that virtually any control sends you into the deck. Tough on the passengers! Tough on the purchasers, too. — **T.T.**

TRENCH (VIRGIN)

Marvellously inept Star Wars rip-off that's not only uninteresting but totally unplayable. As the last hope of the Rebel Alliance you must fly your trusty X-Wing BBC 'B' across the surface of the Empire's Death Star in the vain hope of dropping a big one down sone convenient exhaust port.

Unfortunately as you're cursed with only one life (or X-Wing), no appreciable weaponry and a generally unmangeable craft (a joystick only makes things worse!) success is more than elusive. Something of an SF snooze-em-up I'd say. — **S.K.**

CATCHA SNATCHA (IMAGINE)

An early VIC-20 crock from Imagine (remember them?) depicting the day in the life of an inept store detective. There are shop lifters to catch, lost kids to collect, lost brollies, luggage and the frequent parcel bomb to deal with.

Sounds hectic but the game is boring and slow as hell. Control of the detective is terrible and the pace unchanging despite the fact that as the 'day' wore on the customers got faster and faster. It was impossible to keep up.

This game is so lame that, should one cross your path, shooting it would be considered an act of Mersey. — **R.B.**

PI-EYED (AUTOMATA)

You know Automata, those wonderful wacky people who are trying to stamp out violence in computer games and produce only good wholesome family games. Well, here's a 'wholesome' little product for your Spectrum:

First you've got to run Pi-Man through heavy traffic and into as many pubs as possible. He then cannot leave a pub before he has drunk every pint in the bar. Points are deducted for jogging other drinkers, slipping in beer slops, tripping over dogs or treading in 'certain substances' that are graphically depicted on the pub floor.

Once every drop (of ale) is supped its back out into the traffic for more fun and mayhem. — **R.B.**

B.C. BILL (IMAGINE) BBC

You thought the other games were in bad taste, but wait till you see the bile green screen and pimple-puce graphics of *BC Bill* coming at you. This game is utterly and stunningly . . . mediocre.

B.C. possesses a single, erudite, social skill — the ability to bash women over the head with his club, and drag them off home by the hair. He must then carry on clubbing, in an effort to feed his wives and increasing number of sprogs. But before any macho types 'go ape' with this sudden license to unfettered chest thump — take this, you brutes. The game's about as exciting as a daily soujorn from Esher in a bid to meet the Mothercare tab for a family of four. — **N.T.**

VALHALLA (LEGEND)

This highly hyped, over-rated, over-priced turkey is clearly a classic example of the Emperor's new clothes. Despite being hugely uninteresting and AGONISINGLY SLOW to play it's managed to gross over 2 million pounds! It's enough to make you weep.

We're told it's a 'computer movie'. That characters do pretty much what they like. What we're not told is that the graphics are so poor these figures are nigh on unrecognisable. They just shuffle back and forth across the screen like minuscule roaches. The guests are equally naff, being bothpointless and boring. What on earth (or in Asgard) is the attraction? Game of the year? Pshaw! If you ask me it should be placed in a chest and left in Hell. — **S.K.**

NOTE TO READERS

What are YOUR nominations for Lame Games? Send 'em in to : BIK K, IPC Magazines, Kings Rech Tower (2035), Stamford Street, London SE1 9LS. We'll pay a fiver for the most candid submissions, and print 'em, too!

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if we missed you out. It's just that we didn't have enough room. So if you're feeling rejected, send in your back-catalogue clunkers — or your rivals' (stir, stir) — and we'll try and get them in a reprise feature a some Future Point In Time.

FOR SPECTRUM 48K

```
  1 REM ********************
  2 REM *SHOOTING PARLOUR*
  3 REM *©RYAN MILLS 1984*
  4 REM *  3885 BYTES LONG*
  5 REM ********************
  6 POKE 23658,8
  7 LET HI=1000: LET H$="RM."
 10 DATA 60,90,126,60,24,126,25
5,126,255,179,173,173,173,173,17
9,255,62,127,93,127,127,107,119,
127,24,60,255,189,189,36,36,195,
0,0,0,24,24,126,255,255,66,164,4
1,22,200,55,68,42,196,41,22,200,
55,68,42,201,0,0,0,24,24,24,24,6
0
 20 FOR F=USR "A" TO USR "H"+7:
READ A: POKE F,A: NEXT F
 30 REM ▘ ▙ ▚ ▞ ▟ ▛ ▜ ▗
 40 REM A B C D E F G H
 45 LET Z$="Z": LET X$="X": LET
Y$=" "
 50 PAPER 0: BORDER 5: INK 4: C
LS
 55 PRINT AT 9,8; INK 0;"SHOOTI
NG PARLOUR"
 56 PRINT AT 21,16; INK 7;"▟"
 60 FOR F=-63 TO 60 STEP 8: PLO
T OVER 1;131,5: DRAW OVER 1;F,92
: BEEP .1,3: PLOT OVER 1;131,5:
DRAW OVER 1;F,92: NEXT F
 70 PRINT AT 0,5;Z$;"...LEFT"
 80 PRINT AT 1,5;X$;"...RIGHT"
 90 IF Y$<>" " THEN PRINT AT 2,
5;Y$;"...FIRE"
 95 IF Y$=" " THEN PRINT AT 2,1
;"SPACE...FIRE"
 97 PRINT #1;"          R..REDFIN
E KEYS"
 100 PRINT AT 8,10;"PRESS A KEY"
: PAUSE 0: CLS
 105 IF INKEY$="R" THEN GO TO 50
0
 110 LET SC=0: LET L=1
 120 LET A$="▘ ▙ ▚ ▞ ▟ ▛ ▜ ▗
▟ ▙ ▚ ▞ ▟ ▛ ▜ ▗ ▘ ▙ ▚ ▞ ▟ ▛ ▜ ▗ "
 130 LET B$="  ▙ ▟ ▚ ▞ ▟ ▛ ▜ ▗
 ▚ ▞ ▟ ▙ "
 140 LET A=16: LET B=32
 145 PRINT AT 21,0; INK 1;"
                              "
 150 PRINT AT 0,0;"SCORE"
 160 PRINT "▟▟▟▟▟▟▟▟▟▟▟▟▟▟▟▟▟▟▟
▟▟▟▟▟▟▟▟▟▟▟
```

```
SC+10
 325 IF A$(A+1)="■" THEN LET SC=
SC+3
 326 IF A$(A+1)="■" THEN LET SC=
SC+5
 327 LET A$(A+1)=" "
 340 PRINT AT 0,0;"SCORE=";SC;"
HI=";HI;" ";H$
 350 LET B=B-1
 370 PRINT AT 1,B;" "
 380 RETURN
 400 FOR F=-40 TO -50 STEP -.5:
BEEP .05,F: NEXT F
 410 CLS
 420 PRINT AT 10,4;"YOU HAVE NO
BULLETS LEFT"
 430 PRINT TAB 5;"SCORE ";SC: IF
SC>HI THEN GO TO 650
 440 PRINT TAB 6;"PRESS ANY KEY"
 450 IF INKEY$="" THEN GO TO 450
 460 GO TO 50
 500 BEEP .5,10: CLS
 510 PRINT AT 10,10;"LEFT ";: PA
USE 0: LET Z$=INKEY$: PRINT Z$
 520 PRINT AT 12,10;"RIGHT ";: P
AUSE 0: LET X$=INKEY$: PRINT X$
 530 PRINT AT 14,10;"FIRE ";: PA
USE 0: LET Y$=INKEY$: PRINT Y$
 540 GO TO 50
 550 FOR F=B-1 TO 0 STEP -1
 560 PRINT AT 1,B-1;" ": BEEP .0
1,B: LET B=B-1: LET SC=SC+1: PRI
NT AT 0,0;"SCORE ";SC
 570 NEXT F
 580 CLS
 590 LET L=L+1
 600 PRINT AT 10,10;"LEVEL
";L
 610 FOR F=1 TO 200: NEXT F: CLS

 620 GO TO 120
 650 CLS : PRINT AT 10,0;"YOU HA
VE GOT THE HIGHEST SCORE!!"
 660 PRINT 'TAB 5;"TYPE IN YOUR
INITIALS"'TAB 5;" (NO MORE THAN
3 CHRS LONG)"
 670 INPUT H$
 680 LET H$=H$(1 TO 3)
 690 LET HI=SC: GO TO 40
```

SCORE

SCORE=50 HI=1000 RM.

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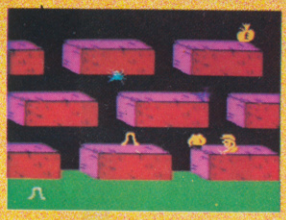

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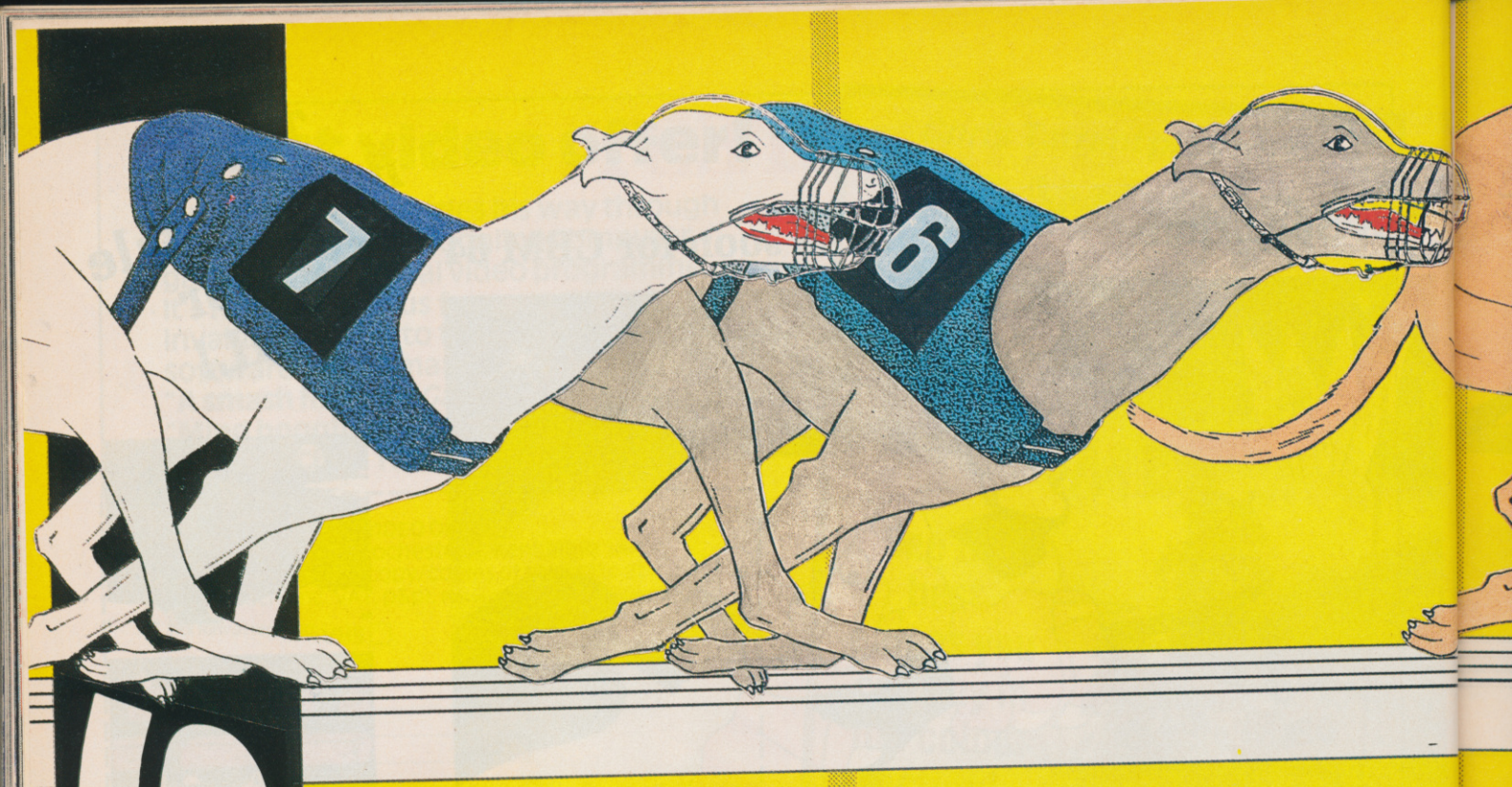
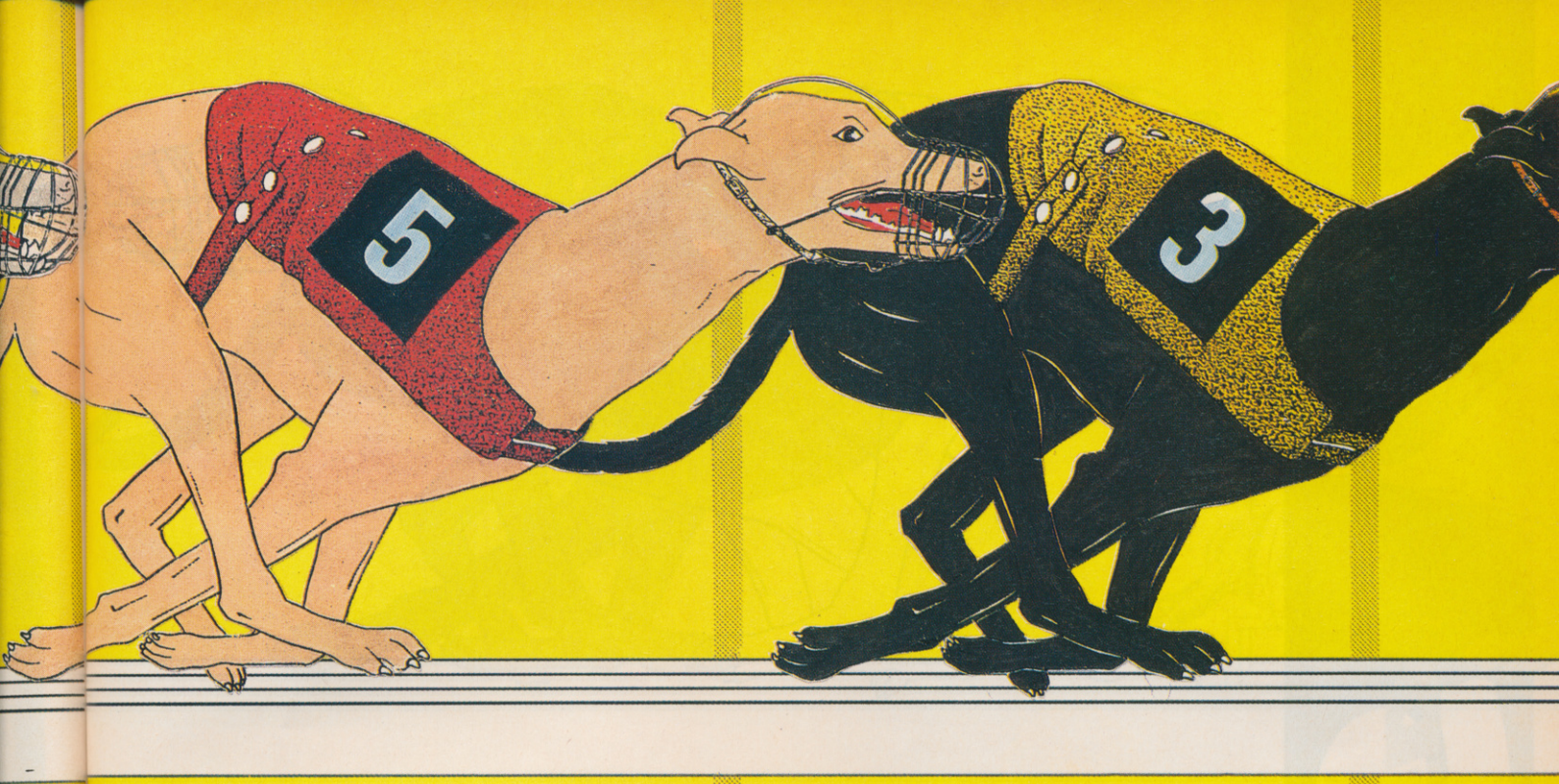


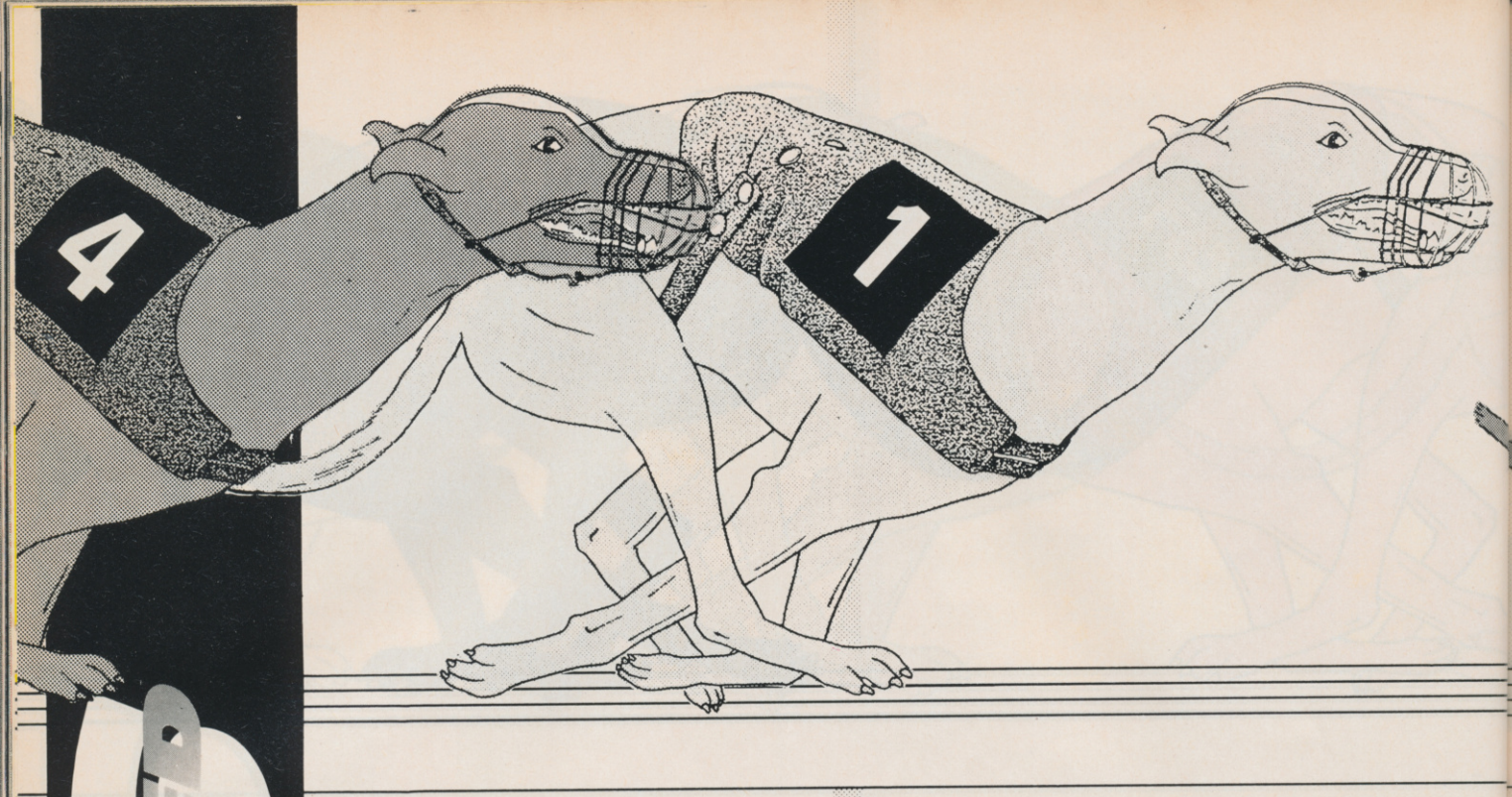
DOGS

```
100 REM ****************************
200 REM *        DOG RACING        *
300 REM *     BY S.I.FIELDING      *
400 REM *      ORIC 1  VERSION     *
500 REM *      DATE:17/03/1984     *
600 REM *ADAPTED FROM 380Z VERSION*
700 REM *WRITTEN BY SHAUN FIELDING*
800 REM *(c) S.FIELDING  1981,1984*
900 REM ****************************
910 REM
920 REM +++INTRO PART 1+++
1000 CLS:PAPER0:INK1:PRINTCHR$(17)
1010 FOR X=47064TO47080
1020 READ Y
1030 POKE X,Y
1040 NEXT X
1050 DATA 0,0,0,16,16,31,31,24,0,0,8,15,
15,56,56,24
1100 PRINTCHR$(4);CHR$(27);"N DOG RACING
 (c) S.FIELDING 1984":PRINT
CHR$(4)
1105 READ V
1110 IF V=-1 THEN GOTO 1199
1115 MUSIC 1,3,V,9
1120 GOTO 1105
1125 DATA 1,2,3,4,5,6,7,8,9,8,7,6,5,4,3,
2,1,2,3,4,5,6,7,8,9,8,7,6,5,4,3,2,1
1130 DATA 2,3,4,5,6,7,8,9,8,7,6,5,4,3,2,
1,2,3,4,5,6,7,8,9,8,7,6,5,4 ,3,2,1, 1
1199 PLAY 0,0,0,0
1200 PRINT:PRINT  :PRINTCHR$(4);CHR$(27)
;"J Would you like instructions":PRINTCH
R$(4)
1300 INPUT J$
1400 IF LEFT$(J$,1)="Y" THEN GOSUB 15900
1450 REM +++LIST BETTING+++
1500 CLS:PAPER0:INK6
1600 PRINT:PRINT:PRINT:PRINT:PRINT:PRINT
:PRINT:PRINT:PRINT
1700 PRINTCHR$(4);CHR$(27);"N BETTING WI
LL FOLLOW :":PRINTCHR$(4)
1800 WAIT 150
1900 CLS:PAPER6:INK4
2000 PRINT"                BETTING":PRINT"
        --------"
2200 PRINT
2300 FOR AA=1 TO 6
2400 LET A(AA)=INT(RND(1)*050+1)
2500 PRINT"       TRAP:";AA;"......";A(AA
);"/1"
2600 PRINT
2620 MUSIC 1,4,AA,8
2640 WAIT 100
2700 MUSIC 1,4,AA+1,8
2800 NEXT AA
2900 PLAY 0,0,0,0
2950 REM +++TAKE BET AND MONEY+++
3000 PRINT:PRINT:PRINT
3100 INPUT"WHICH DOG ";E
```




```
3200 IF E<1 OR E>6 THEN 3100
3400 PRINT:PRINT
3500 INPUT "HOW MUCH DO YOU BET _";D
3550 REM +++ SET UP SCREEN FOR RACE+++
3600 CLS:PAPER 0
3650 LORES 0
3700 INK5:PLOT 0,0,"                DOG RAC
ING"
4700 FOR C=0TO38:PLOTC,2,18:NEXT
4800 FOR C=0TO38:PLOTC,22,19:NEXT
4900 PLOT 3,1,"S":PLOT 36,1,"F"
5000 FOR C=3TO21:PLOT 36,C,":":NEXT
5005 K=4
5010 FOR X=1TO6
5020 PLOT 1,K,X
5030 K=K+3
5040 NEXT X
5050 FOR X=4TO19STEP3
5100 PLOT 3,X,"{"
5200 NEXT X
5250 FOR C=3TO21:PLOT 2,C,":":NEXT
5300 PLOT10,12,"THEY'RE UNDER ORDERS"
5400 AB=3:AC=3:AD=3:AE=3:AF=3:AG=3
5500 WAIT 200
5600 MUSIC 1,4,6,9:WAIT 100
5605 MUSIC 1,4,4,9:WAIT 100
5610 MUSIC 1,4,8,9:WAIT 25
5620 MUSIC 1,4,6,9:WAIT 100
5630 PLAY 0,0,0,0
5700 PLOT10,12,"    THEY'RE OFF !   "
5800 FOR C=1TO19:PRINT:NEXT
5900 WAIT 250
6000 PLOT 10,12,"                   "
6500 REM +++RACE ROUTINE+++
7000 FOR Z=1TO2
7100 LET G(Z)=INT(RND(1)*6+1)
7200 IF G(2)=G(1) THEN 7100
7300 ON G(Z)GOTO 7400,8000,8600,9200,980
0,10400
7400 PLOT AB,4,32
7500 LET AB=AB+1
7600 PLOT AB,4,"{"
7700 IF AB=37 THEN 11000
7800 WAIT10
7900 GOTO 7100
8000 PLOT AC,7,32
8100 LET AC=AC+1
8200 PLOT AC,7,"{"
8300 IF AC=37 THEN 11000
```

CONTINUED NEXT PAGE



DOG CONTINUED

```
8400 WAIT10

8500 GOTO 7100

8600 PLOT AD,10,32

8700 LET AD=AD+1

8800 PLOT AD,10,"{!"

8900 IF AD=37 THEN 11000

9000 WAIT10

9100 GOTO 7100

9200 PLOT AE,13,32

9300 LET AE=AE+1

9400 PLOT AE,13,"{!"

9500 IF AE=37 THEN 11000

9600 WAIT10

9700 GOTO 7100

9800 PLOT AF,16,32

9900 LET AF=AF+1

10000 PLOT AF,16,"{!"

10100 IF AF=37 THEN 11000

10150 WAIT10

10200 GOTO 7100

10400 PLOT AG,19,32

10500 LET AG=AG+1

10600 PLOT AG,19,"{!"

10700 IF AG=37 THEN 11000

10750 WAIT10

10800 GOTO 7100
```

```
11000 NEXT Z

11050 REM +++END OF RACE,LIST S.P.+++

11100 WAIT 300:CLS

11200 PRINT:PRINT:PRINT:PRINT:PRINT:PRIN
T:PRINT

11300 PRINTCHR$(4);CHR$(27);"J IN A MOME
NT THE S.P.":PRINTCHR$(4)

11400 WAIT 500:CLS:PAPER0:INK1

11500 T=INT(RND(1)*10+1)

11600 W=INT(RND(1)*60+1)

11650 PRINT

11700 PRINTCHR$(4);CHR$(27);"J ORIC RACI
NG":PRINTCHR$(4)

11800 PRINT:PRINT:PRINT:PRINTT;":";W;" H
ARINGNEY"

11900 PRINT:PRINT

12500 PRINT"1st  TRAP ";G(1);" ";A(G(1))
;"/1"

12600 PRINT:PRINT

12700 PRINT"2nd  TRAP ";G(2);" ";A(G(2))
;"/1"

12900 WAIT 400

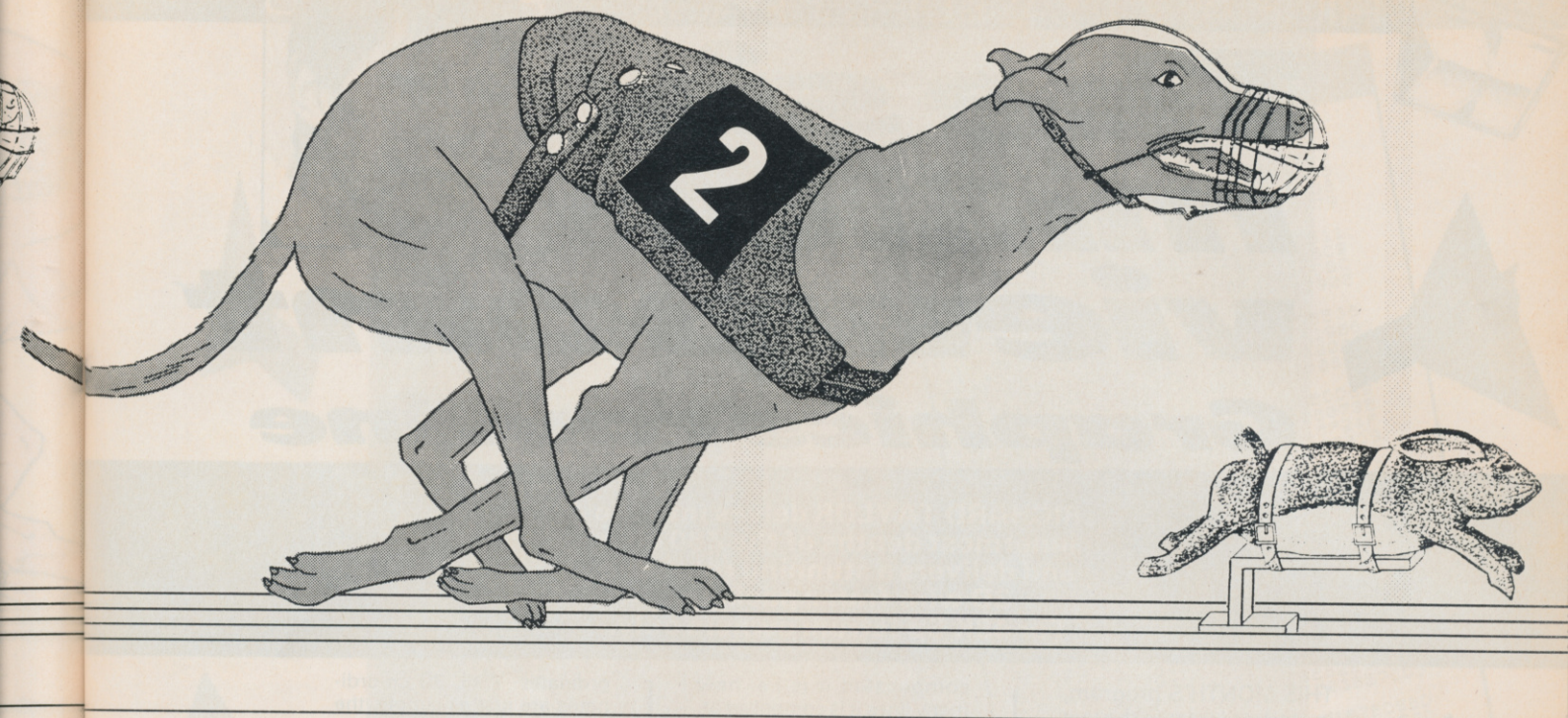
13000 CLS:PAPER0:INK5

13050 REM +++HAVE YOU WON ?+++

13100 IF E=G(1)THEN GOTO 13300 ELSE 1320
0

13200 IF E=G(2) THEN GOTO 13950 ELSE GOT
O 14490

13300 PRINT:PRINT:PRINT:PRINT:PRINT:PRIN
T:PRINT
```




```
13400 PRINTCHR$(4);CHR$(27);"N        ****
**************":PRINTCHR$(4)

13420 PRINTCHR$(4);CHR$(27);"N        YOU
HAVE COME FIRST":PRINTCHR$(4)

13440 PRINTCHR$(4);CHR$(27);"N        ****
**************":PRINTCHR$(4)

13700 LET AK=A(G(1))*D

13800 PRINT:PRINT:PRINT"YOU HAVE WON _";
AK

13900 GOTO 14800

13950 PAPER 6:INK4

14000 CLS:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT:PRINT:PRINT:PRI

NT"YOU HAVE COME SECOND"

14200 AK=A(G(2))*D/2

14300 PRINT:PRINT"YOU HAVE WON _";AK

14400 GOTO 14800

14490 CLS:INK3:PAPER0

14500 CLS:PRINT:PRINT:PRINT:PRINT:PRINT:
PRINT:PRINT:PRINT:PRINT:PRI

NT"YOU HAVE LOST (SORRY !!!!!)"

14800 WAIT 400

14850 REM +++ANOTHER GO ?+++

14900 CLS:PAPER0:INK2

14950 PRINT

15000 PRINTCHR$(4);CHR$(27);"J WOULD YOU
 LIKE ANOTHER RACE ?":PRINT

CHR$(4)

15050 RESTORE

15100 INPUT L$

15200 IF L$="YES" OR L$="Y"THEN 1900

15300 PRINT:PRINT:PRINT"OK THEN.......BY
E"

15800 END

15900 REM +++INTRO PART 2+++

16000 CLS:PAPER0:INK5:PRINT

16100 PRINTCHR$(4);CHR$(27);"N
  DOG RACING":PRINTCHR$(4)

16200 PRINTCHR$(4);CHR$(27);"N
  ==========":PRINTCHR$(4)

16300 PRINT

16400 PRINT"In this game,you use your sk
ill to"

16500 PRINT"guess which dog will win the
 follow-"

16600 PRINT"ing race,or come second,If y
ou win,"

16700 PRINT"then the bet you placed on t
he dog"

16800 PRINT"will be multiplied by the S.
P. which"

16900 PRINT"you will see at the end of t
he race."

17000 PRINT"If you come second,then the
bet you"

17100 PRINT"placed will be multiplied by
 the S.P"

17200 PRINT"and then halved."

17300 PRINT"   Press 'RETURN' to continu
e,and"

17400 PRINT"good luck."

17500 GET BA$

17600 RETURN
```

The six million viewpoint Graphics routine

RICHARD TAYLOR delves into the innermost depths of the Z80 chip and delivers a stunning rotatable 3D wire-frame package. For 48K Spectrum owners only.

THIS MONTH'S program, in stark contrast to the last three months, has nothing to do with 2D animation. Instead the program works in 3 dimensions and is called a 3D Rotator.

Basically it allows you to design a 3D object on paper; tap a few numbers into the old Spectrum and end up with a computer representation of the object on the TV screen — rather like user definable graphics but in three dimensions. Well, you might think, that's all very clever but what's the point of the whole exercise? The point is that at the touch of a key you can rotate the object around on the TV screen and look at it from another angle. Not only does this give a very nice demo of micro-graphics but also such animation can be very useful for integrating into home-brewed games. The program's been designed so that it's easy to put in your own programs and is able to draw a 'wire frame' representation of any object bounded by straight lines.

The rotator is written in 100% machine code but even so, because of the sheer complexity of the mathematical formulas used to work out exactly what an object looks like from numerous different positions, the program isn't instant. I've used all the speeding up techniques I can think of in writing the program to make it run as quickly as possible. The result is that the program is fast enough to make a turning object look as if it is really rotating, rather than just 'jumping' from one position to the next.

The amount of time the Spectrum takes to draw the object really depends on how complicated it is i.e. how many lines it is composed of. Now, before I continue, I feel I should warn all 16K owners that this program is for its larger memory sized brother only. Hard luck.

The machine code is a bit on the lenthy side — it runs to about 1.25K. The machine code loader is shown in listing one. All (!) you have to do is tap it in, RUN it and wait for a couple of minutes. You should then be greeted with a message advising you to SAVE the machine code to tape a couple of times using:—

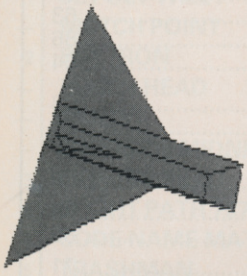
```
SAVE "3D ROTATER" CODE
58084,1308
```

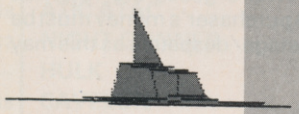
If you're unfortunate enough to get a message informing you about an error in one of the DATA lines then I'm afraid that you'll have to correct it and try again.

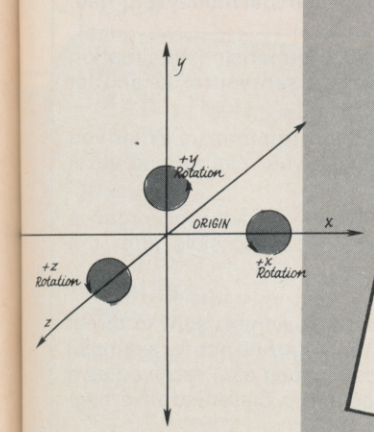
So as not to compound you finger ache with another gigantic listing, the BASIC program which gives you the facility to actually enter the data for your own objects will not be published until next month. However, the actual rotating bit is complete so, meanwhile, to act as a demonstration of its capabilities, there's listing 2. This program sets up the data for a simple representation of an aeroplane which you can rotate about and so generally get the feel of the rotation functions. After typing it in and running it, you'll have to set your tape recorder to the start of the machine code recording. After that's loaded you'll be presented with a front, horizontal view of the plane.

You'll no doubt be aware of how points in 2D space are represented using x and y co-ordinates. Well, 3D co-ordinates are just as simple, the only difference being that you have to tag a z co-ordinate on the end of the other two. The third axis is at right angles to the first two i.e. if you draw x and y axis on a piece of paper then the z axis would pass through the paper. In this program, positive z values go into the page and negative ones out of the page. Listing 2 allows you to rotate the plane around the x, y and z axis using, not surprisingly, the x, y and z keys. Pressing caps-shift and one of the rotation keys (i.e. the capital of the letter) resulsts in negative rotation in the appropriate axis. Notice how all rotation takes place about the point of origin, where all the axes intersect. The program itself is able to rotate an object with a resolution of just 2 degrees. Therefore, in each axis, you can view the plane from some 180 different views. In total there are 5,832,000 (180 3) possible aspects on each designed object!

It's all very well having a resolution of 2 degrees, but if you want to turn an object over quickly then it would take ages because of the number of times the object has to be re-drawn in its journey. To remedy this, you can change how many (multiples of 2) degrees the object rotates each time you press a rotation key — by just pressing the appropriate digit key. the program will go into a demonstration mode if you press 'd', where the plane is automatically rotated around by the computer. Demo mode can be terminated with key 'e'. Again, the speed of rotation can be varied with the digit keys.







LISTING 1

```
                3D ROTATOR
10 REM      By Richard Taylor
20 REM
30 CLEAR
40 CLEAR 58051
50 LET a=58084
60 FOR i=1 TO 21
70 LET t=0: READ w$
80 IF LEN a$/2<>INT (LEN a$/2)
THEN GO TO 200
90 FOR c=1 TO LEN a$ STEP 2
100 LET x=CODE a$(c)-48-7*(a$(c
)>"A")
110 LET y=CODE a$(c+1)-48-7*(a$
(c+1)>"A")
120 POKE a,16*x+y
130 LET t=t+16*x+y
140 LET a=a+1
150 NEXT c
160 IF t<>t THEN GO TO 200
170 PRINT "Data OK - Now save m
achine code to tape."
180 STOP
190 STOP
200 PRINT "ERROR in line ";7990
+i*10
210 STOP
8000 DATA 9634,"2100E81101E801FF
1736000EDB021FFFF22CDFE2DD211C4E223A
C4E211D2E7CDB5E34F3AC4E2FE8A79CD
58E6E2207E23ACE5E211D2E7CDB5E34F3A
C5E2FE8A79CD58E6E2
8000 DATA 9938,"22CC9E23AC6E211D2
E7CDB5E34F3AC6E211A4E7CDB5E34F3AC4E2FE8A
79CD58E6E22CDB
E23AC4E211A4E7CDB5E34F3AC4E2FE2CDB
A4E7CDB5E34F3AC5E"
8020 DATA 8809,"E2FE2D3803FE8773F
79CD58E6E22CDBE23AC6E211A4E7CDB5E3
4F3AC6E23ACE5E211A4E7CDB5E3
8030 DATA 6523,"07200A7BC6205F3F
00D5EDBDD1147AE6"
8040 DATA 6623,"07200A7BC6205F3F
9FE8F88257C110FE5C24FFE2D3803FE8773F
3000534F3A211800FE873004D65A18033E
E4911CF4F2500E5CDB8"
8050 DATA 8346,"19EB18EFF234E2346
CF01FE4F2500E5CDB8"
8060 DATA 8346,"19EB18EFF8CB38CB19
38F2F32355C7E23E5EE233E5FE7EDD21
C4E2E7CDB5E34F3AC4E2FE8A79CD58E6E2
A72811788FE2C3000C"
8070 DATA 7819,"7CFECC03007237CB5
2BC4339E4E1C10B7B8120CC6FBCC911010
7995300 4ED441EFF4F7894300 4ED4416
FF47B1C8779B8382868861CB7B2010CB7A
2006CDA0E4C3CFFE4"
8080 DATA 10272,"CDA0E4C3EBE4CB7
A2006CDA0E4C323E5596
0E4C3232E5CB7A2006CDA0E4C33FE5CDA
0E4C3362E5CB7A2006CDA0E4C385E5CDA
0E4C3A8E5E5ED4BD2"
8090 DATA 5354,"E26826005422922929
2929790F0FFEE1F5F191100E8197AE6
073C473E010F10FD4FB6777908D14278
CB3FC9833803BA3807 92D5112000019D1
0800F38084FB6777 9"
8000 DATA 6199,"0810E8C92318F583
3803BA3807 92D5 11E0FF19D1080F3808
4FB6777908 10E8C92318F583803BA38
07 92D5112000 19D1080738084FB6777 9
8090 DATA 6415,"3803BA3807 92D511
2000DD853804DDBC
2B18F5DD6BDD6211 2000DD853804DDBC
3807DD940807 380B0804F19B6
10E8C92318F2DD6B"
8100 DATA 6291,"DD5211E0FFDD8538
04DDBC3807DD940807 380B0804F19B6
7779081 0E8C92318F2DD6BDD6211 2000
8110 DATA 7034,"C92B18F2DD6BDD62
1 1E0FFDD853804DDBC3807DD940807 380B0804
F19B6777908 10E8C92B18F24F
0B0804F19B6777908 10E8C92B18F2803A72039
CB0019FCB09969 67C97CFEFF2803A72039
8120 DATA 5595,"445FE54A16007DCB
CB15CE0003002DD2C10EF7C
7CC80EFF7D2F6F7C2F6723C90E000CB
8130 DATA 6375,"DD2E0002100002930
DD7DD2FF8F7C2F6723C90E5EEBEC5CD59
8140 DATA 10481,"2F6723C96F25000D
DA9E6CDD7E6CDE2E6CD00E7CD1BE7CD3
1F5CDCDBE522DCE2D17BCDCDBE522DAE2C
87D2F8F7C2F6723C90E5EEBEC5CDD4E
8150 DATA 11855,"7CE7C391E7ED5BD
7CDE7CD54E7CD67E7CD"
8160 DATA 11955,"D5E22ADAE2CDD4E
DD4E5EBE1B7ED5222ADEE2C
ADCE2CDD4E5EBE1B7ED5
5D11922DEE2C9ED5B"
8170 DATA 11185,"D5E22ADAE2CDD4E
5D11922DEE2C9ED5BC7E22ADEE2C
2E2CDD4E5EBE1B7ED5222ADEE2C
BE22AE0E2CDD4E5EBE1B7ED5222ADEE2C
DD4E5D11922DEE2C9ED5BDAE22AE2E2C
7ED5222ED5D1CD15E522"
8180 DATA 9547,"DEE2C92ADAE2ED5B
DEE2CD15EBEB2180000B7ED5222DAE2C93
2ADCE22ED5BDEE2CD15EBEB2180000B7ED
5222DCE22ED5BDEE2CD15EBEB2180000B7ED
7CA745C80100C0C9"
8190 DATA 8753,"FFFFFEFEFDFBFF9F7
FEFF3F0FECE9E5E1DDD8D3CEC9C3BEB7B1
ABA49D968F877F787065855074F463E35E
2C231B120900000121B232C353E464F
5760583707877875F"
8200 DATA 6111,"969DA4ABB1B7BEC3
C9CED3D8DDE1E5E9ECF0F3F5F7F9FBFD
FEFEFFFF"
```

LISTING 2

```
10 BORDER 0: PAPER 0: INK 7
20 CLEAR 58051
30 LOAD ""CODE
40 GO SUB 1000: LET c=3
50 RANDOMIZE USR 58084
60 LET a$=INKEY$
70 IF a$="" THEN GO TO 60
80 IF a$="X" THEN POKE 58052,P
EEK 58052-c: IF PEEK 58052>179 T
HEN POKE 58052,PEEK 58052-76
90 IF a$="X" THEN POKE 58052,P
EEK 58052+c: IF PEEK 58052>179 T
HEN POKE 58052,PEEK 58052-180
100 IF a$="Y" THEN POKE 58053,P
EEK 58053-c: IF PEEK 58053>179 T
HEN POKE 58053,PEEK 58053-76
110 IF a$="y" THEN POKE 58053,P
EEK 58053+c: IF PEEK 58053>179 T
HEN POKE 58053,PEEK 58053-180
120 IF a$="Z" THEN POKE 58054,P
EEK 58054-c: IF PEEK 58054>179 T
HEN POKE 58054,PEEK 58054-76
130 IF a$="z" THEN POKE 58054,P
EEK 58054+c: IF PEEK 58054>179 T
HEN POKE 58054,PEEK 58054-180
140 IF a$>="1" AND a$<="9" THEN
LET c=VAL a$: BEEP .1,0
150 IF a$="d" OR a$="D" THEN BE
EP 1,20: GO SUB 2000: BEEP 1,20
160 GO TO 50
1000 RESTORE 8000: LET o$=""
1010 READ a: IF a=999 THEN RETUR
N
1020 READ b,c,d
1030 IF b<0 THEN LET b=256+b
1040 IF c<0 THEN LET c=256+c
1050 IF d<0 THEN LET d=256+d
1060 LET o$=o$+CHR$ a+CHR$ b+CHR
$ c+CHR$ d
1070 GO TO 1010
2000 LET c=3
2005 LET a=RND*2
2010 FOR b=0 TO 44 STEP c
2020 RANDOMIZE USR 58084
2025 LET a$=INKEY$
2028 IF a$="e" OR a$="E" THEN RE
TURN
2030 IF a$>="1" AND a$<="9" THEN
LET c=VAL a$: BEEP .1,0
2040 POKE 58052+a,PEEK (58052+a)
+c: IF PEEK (58052+a)>179 THEN P
OKE 58052+a,PEEK (58052+a)-180
2050 NEXT b
2060 GO TO 2005
8000 REM
8010 DATA 0,8,-5,-40,1,5,5,-30
8020 DATA 1,-5,5,40,1,-5,5,-30
8030 DATA 1,-5,5,40,1,-5,5,-40
8040 DATA 0,8,-5,-30,1,5,5,40
8050 DATA 1,-8,-5,-40,1,5,5,-30
8060 DATA 1,8,-5,40,1,-8,-5,-40
8070 DATA 1,-5,5,-40,1,8,-5,40
8080 DATA 1,-5,5,40,1,8,-5,-40
8090 DATA 1,0,5,-30,0,-8,-5,40
8100 DATA 1,0,5,40,1,0,-5,-40
8110 DATA 1,50,-5,10,0,0,20,40
8120 DATA 1,-8,-5,40,1,-5,-10
8130 DATA 0,-5,5,-10,1,-50,-5,40
8140 DATA 0,5,5,40,1,8,-5,-40
8150 DATA 999
```

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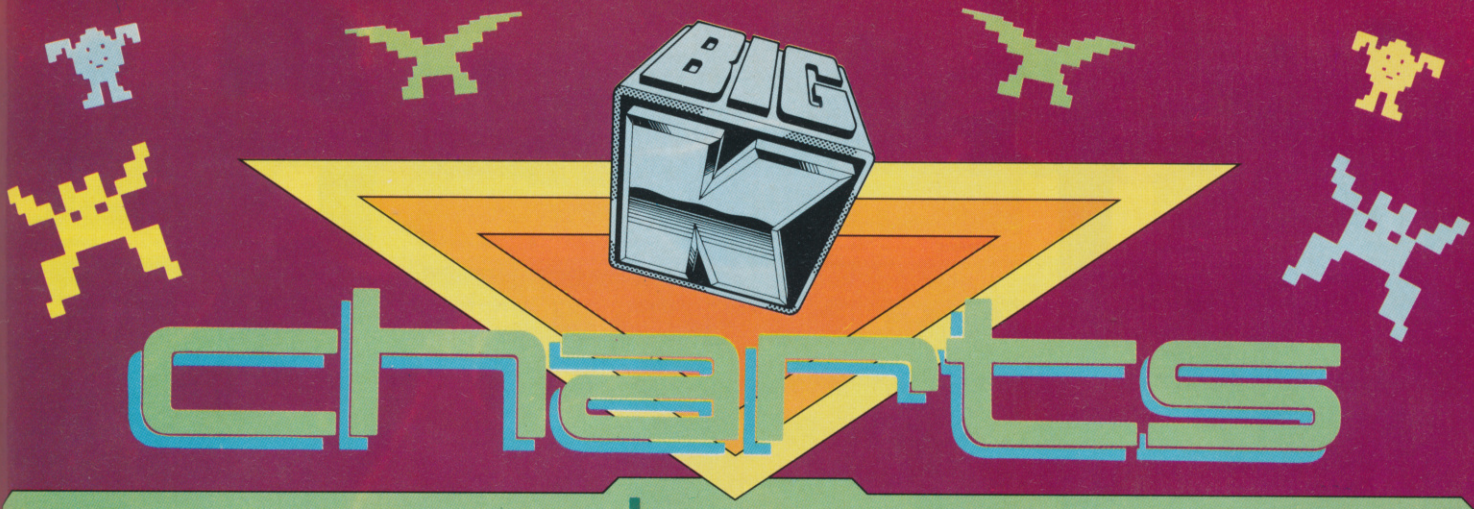

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1	(1)	PITFALL 2 (Activision)
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4	(16)	GALAXIAN (Atari)
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9	(5)	SUPER COBRA (Parker)
10	(30)	PAC MAN (Atari)
11	(11)	POPEYE (Parker)
12	(6)	SPACE SHUTTLE (Activision)
13	(19)	PITFALL (Activision)
14	(8)	RIVER RAID (Activision)
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21	(17)	DIG DUG (Atari)
22	(29)	MOON PATROL (Atari)
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24	(18)	Q-BERT (Parker)
25	(21)	COOKIE MONSTER MUNCH (Atari)
26	(24)	BIG BIRD EGG CATCH (Atari)
27	(20)	ALPHA BEAM (Atari)
28	(27)	TUTANKHAM (Parker)
29	(26)	KANGAROO (Atari)
30	(23)	BATTLE ZONE (Atari)

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EMPIRES (Imperial Software)
GREEDY DWARF (Goldstar)
GHOULS (Micro Power)
FRAK! (Aardvark)
MICRO OLYMPICS (Database Publications)
TRASHMAN (New Generation)
TWIN KINGDOM VALLEY (Bug-Byte)
JACK AND THE BEANSTALK (Thor)
TOWER OF EVIL (Creative Sparks)
PHAROE'S CURSE (Hesware)
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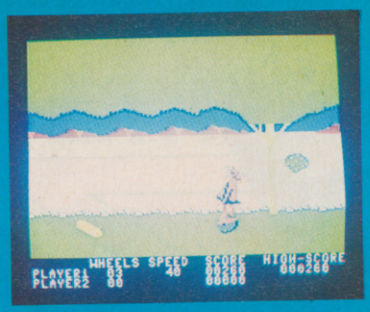
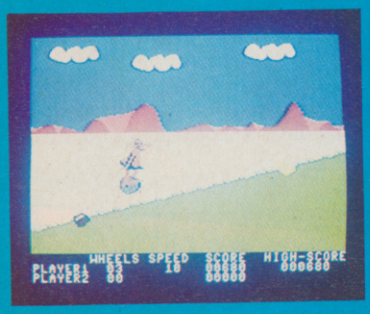
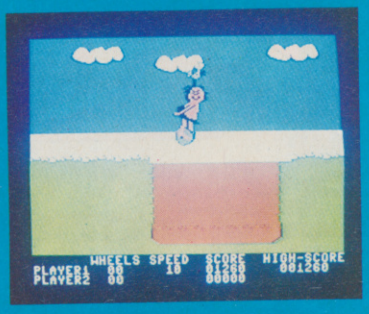


COMMODORE 6

B.C.'S QUEST FOR TIRES™

Can Thor save Cute Chick from the hungry dinosaur? Only you can help.

At first he only has to jump rocks and holes. Then he must jump and duck, almost simultaneously, to avoid the logs and low hanging tree limbs in the Petrified Forest.

The only way Thor can get across the river is to hop on the turtles' backs. These turtles sometimes get tired and submerge at the wrong moment, much to Thor's dismay! To add to Thor's difficulties, his arch-enemy Fat Broad is waiting on the other side to ambush him.

If Thor's timing is good, the Dooky Bird will help him over the lava pit. If he jumps the pit just when Dooky Bird is overhead, the prehistoric bird will pick him up and carry him across!

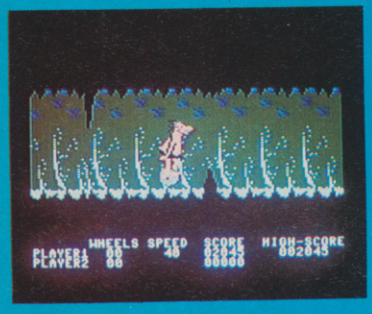
Thor must build up plenty of speed during his downhill run before the cliff. Timing is crucial, too. If Thor's balance is off or he is too slow he will crash into the ravine or the face of the cliff.

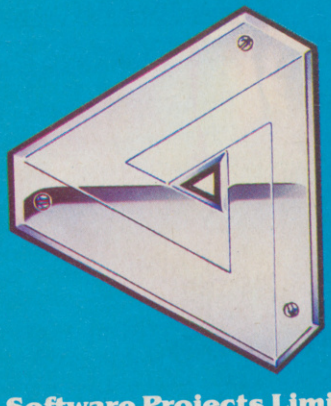
Once over the cliff, Thor faces his most difficult challenge: the volcanic eruption. In addition to the obstacles on the ground, he is showered with boulders from the sky.

Once again Thor must cross the river on the turtles' backs. Then, at last, he must face the dinosaur!

If Thor can get past the dinosaur and into the cave, he has only a short way to go to rescue Cute Chick. On his way, Thor must duck under stalagtites and jump over stalagmites to avoid crashing.

If Thor does crash, don't worry: he has five wheels. But True Love is calling him, so use all your agility and cunning to help him rescue Cute Chick!





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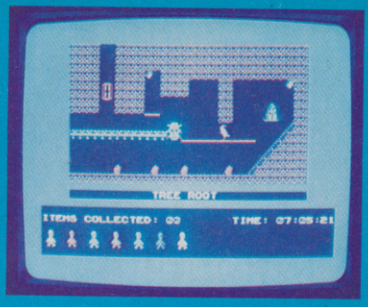


64 AT ITS BEST

This is a Computer and Video Games Hall of Fame Game.

Jet Set Willy

THE FOLLOW-UP TO THE NUMBER 1 COMMODORE 64 GAME MANIC MINER

Miner Willy, intrepid explorer and nouveau-riche socialite, has been reaping the benefits of his fortunate discovery in surbiton. He has a yacht, a cliff-top mansion, an Italian housekeeper and a French cook, and hundreds of new found friends who REALLY know how to enjoy themselves at a party.

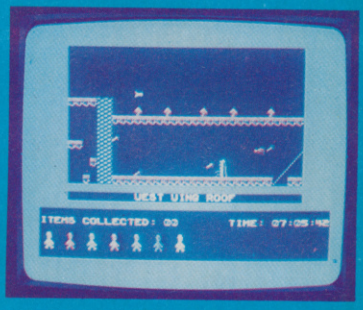
His housekeeper, Maria, however, takes a very dim view of all his revelry, and finally after a particularly boisterous thrash she puts her foot down. When the last of the louts disappears down the drive in his Aston Martin, all Willy can think about is crashing out in his four-poster. But Maria won't let him into his room until ALL the discarded glasses and bottles have been cleared away.

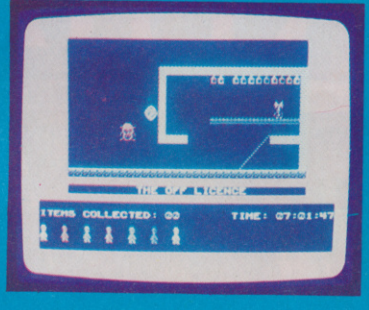
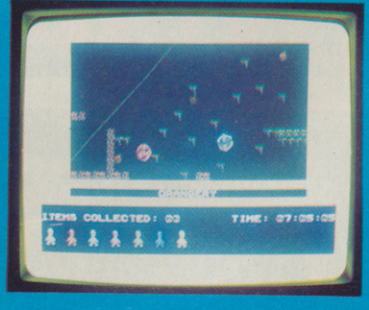
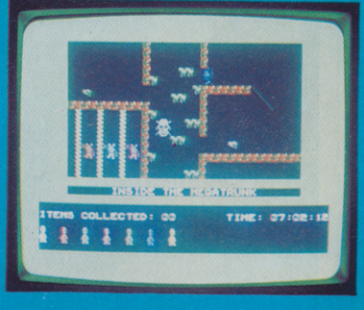
Can you help Willy out of his dilemma?

He hasn't explored his mansion properly yet (it IS a large place and he HAS been VERY busy) and there are some very strange things going on in the further recesses of the house (I wonder what the last owner WAS doing in his laboratory the night he disappeared).

You should manage O.K. though you will probably find some loonies have been up on the roof and I would check down the road and on the beach if I was you.

Good luck and don't worry, all you can lose in this game is sleep.



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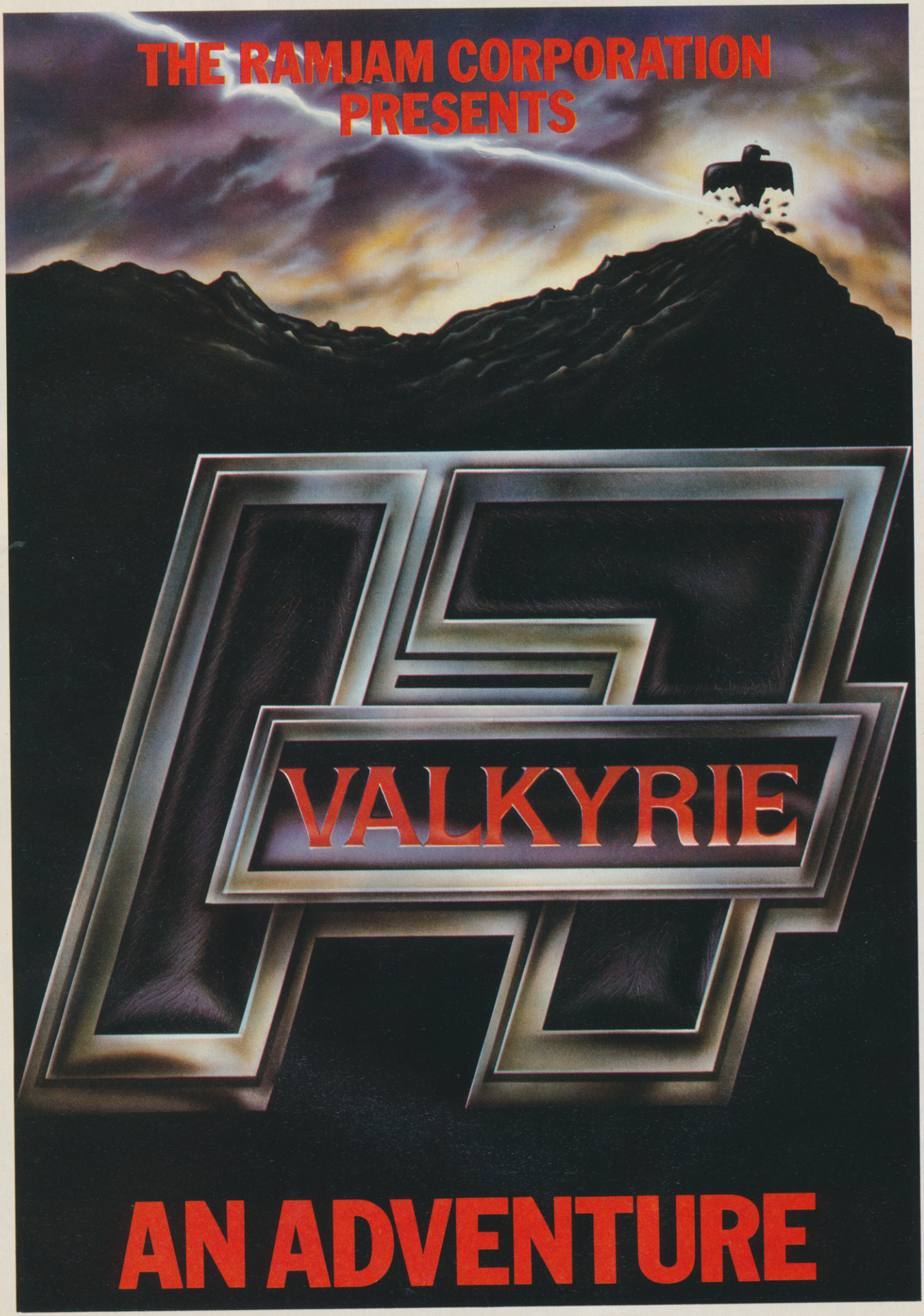

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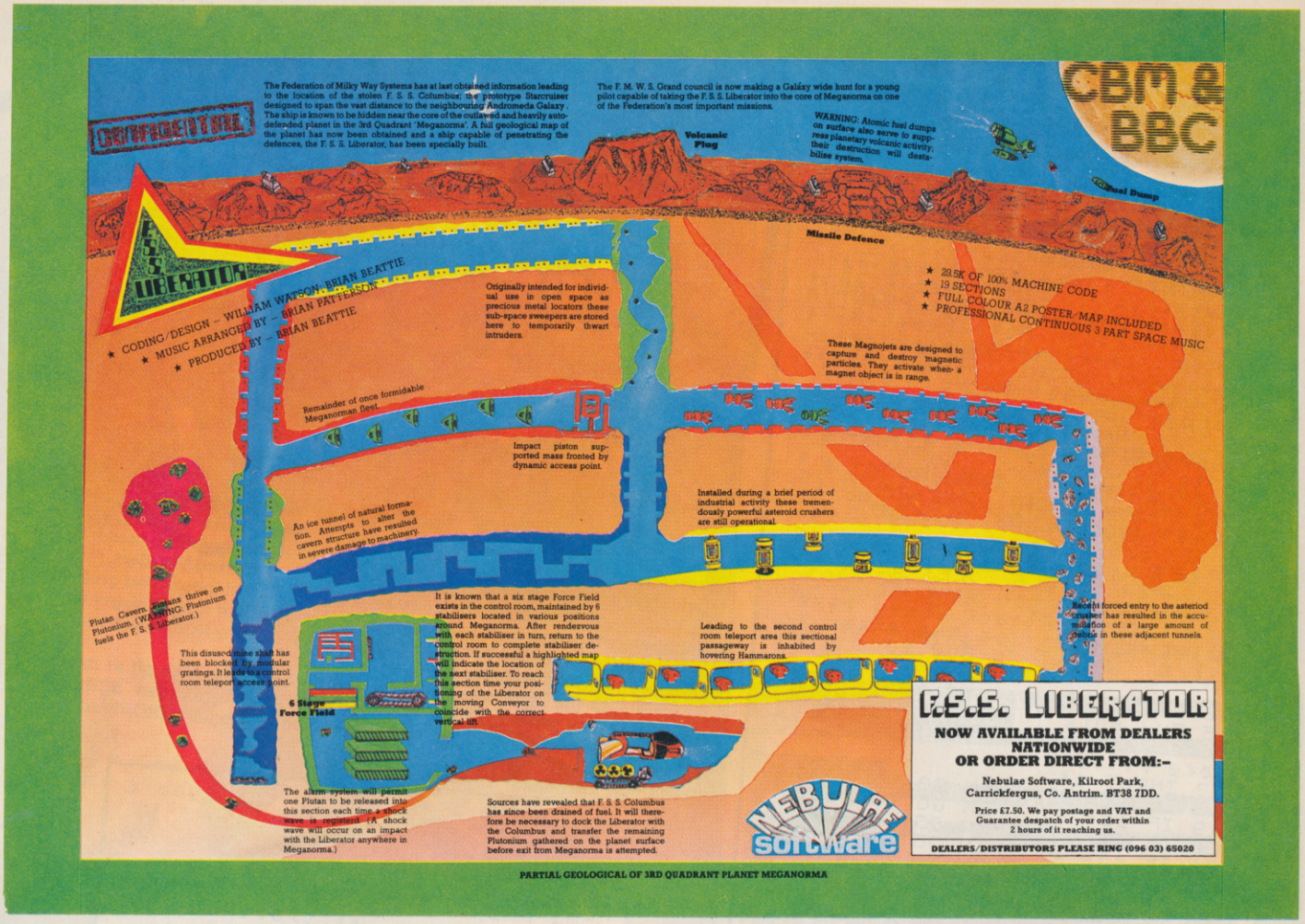

PARTIAL GEOLOGICAL OF 3RD QUADRANT PLANET MEGANORMA

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DREAM

FOR SPECTRUM
By SIMON SPEAR

Airborne Attack

In this improbable combination of World War 1 aerial warfare and a spreadsheet (honest!) you are the owner / manager / squadron leader of a private enterprise aerodrome somewhere in shell-scarred Flanders.

You will be expected to buy biplanes (bye-bye), fuel, pilots and grub. In addition to this, you have to allocate your men and their magnificent flying machines to patrol the front and blaze away at Johnny Hun. It's all menu-driven and multiple-choice.

THRILL to the astonding graphics as your Sopwiths take off at dawn. WINCE as you run out of fuel and your "kites" are grounded. SCREAM WITH FURY when your men mutiny for lack of wages. GROAN at the terrible spelling.

Sounds incredible? So was the real thing . . .

```
  0>REM S.J.Spear
  1 GO SUB 8500: PAPER 6: CLS
  2 LET me=10000: LET m=10000
  3 LET fe=INT (RND*10000): LET
 f=INT (RND*10000)
  5 PRINT "*******************
************": PRINT "**********
**********************": PRINT "
*********Airborn Attack*********
": PRINT "**********************
**********": PRINT "************
*******************"
  6 PRINT AT 10,9;"By S.J.Spear
"
  7 PRINT AT 21,0;"    Press any
 key to continue"
  8 IF INKEY$="" THEN GO TO 8
  9 LET enemy=INT (RND*25)
 10 LET yours=INT (RND*20)
 11 GO SUB 9000
 12 LET plato=1
 13 PAPER 5: CLS : LET y=0
 14 PRINT "Do you want to ..."
 15 PRINT "1 Attack enemy base"
 PRINT "2 Wait for the enemy to
 attack": PRINT "3 Buy more plan
es"
 16 PRINT "4 Look at map": PRIN
T "5 Buy more fuel": PRINT "6 Bu
y more rations": PRINT "7 Recrut
e more pilots"
 17 INPUT a$
 18 IF a$="1" THEN GO TO 1000
 19 IF a$="2" THEN GO TO 2000
 20 IF a$="3" THEN GO TO 3000
 21 IF a$="4" THEN GO TO 5000
 22 IF a$="5" THEN GO TO 6000
 23 IF a$="6" THEN GO TO 7000
 24 IF a$="7" THEN GO TO 4000
 999 GO TO 13
1000 CLS
1001 PRINT "How many aircraft do
 you want touse?"
1002 INPUT b: LET desa=INT (RND*
b)
1003 IF b>yours THEN GO TO 9900
1004 LET f=f-b*INT (RND*20): IF
b>pilot THEN GO TO 2850
1005 LET yours=yours-b: LET pilo
t=pilot-b
1006 LET fe=fe-b*INT (RND*20)
1010 PRINT AT 10,0;"Do you want
to watch the planes take off ? (
y/n)"
1011 INPUT LINE l$
1012 IF l$="y" THEN GO TO 8000
1017 IF l$="n" THEN GO TO 8600
1999 GO TO 1011
2000 CLS : PRINT "The enemy is a
ttacking your basedo you want to
 send your planes up to intercep
t?"
2001 INPUT LINE a$
2002 IF a$="y" THEN GO TO 2200
2003 IF a$="n" THEN GO TO 2500
2200 GO TO 1000
2500 CLS
2501 LET rat=rat-250000
2502 LET f=f-1000
2503 LET yours=0
2506 PRINT "      The enemy planes
 nearly          destroyed the ai
rbase!!"
2600 GO TO 9000
2850 CLS
2851 PRINT "You don't have that
many pilots"
2852 PAUSE 100
2853 GO TO 12
2999 STOP
3000 CLS
3001 PRINT "How many planes do y
ou want to  buy ?"
3002 INPUT c
3003 LET bair=INT (RND*1000)
3004 IF bair*c>m THEN GO TO 3500
3005 LET m=m-bair*c
3006 LET me=me-100: LET rate=rat
e-1000
3007 PRINT "That will cost you £
";bair*c
3008 LET yours=yours+c
3009 PAUSE 100: GO TO 9000
3500 CLS
3501 PRINT "    You can't afford
that many        aircraft"
3502 PAUSE 100
3503 GO TO 13
4000 CLS
4001 PRINT "How many pilots do y
ou need ?"
4002 INPUT k
4003 LET pilot=pilot+k
4004 PRINT "You now have ";pilot
;" pilots"
4005 PAUSE 100
4006 GO TO 12
4999 STOP
5000 PAPER 7: CLS
5001 PRINT AT 21,0;"::::::": PRI
NT AT 20,0;"YOUR BASE"
5002 PRINT AT 1,9;"::::::": PRIN
T AT 0,9;"ENEMY BASE"
5003 PRINT AT 10,5;"↑↑↑↑↑↑↑↑";AT
 11,3;"↑↑↑↑↑↑↑↑";AT 12,5;"↑↑↑";A
T 13,5;" ↑": PRINT AT 9,6;"WOODS
"
5004 PRINT AT 10,24;"      ";AT
11,23;"    ";AT 12,24;"     ": PRI
NT AT 9,24;"LAKE"
5100 PAUSE 0
5109 GO TO 13
6000 CLS
6001 PRINT "How many gallons of
fuel do you  want to buy ?"
6002 INPUT v
6003 LET fuelb=1
6004 CLS
6006 IF v*fuelb>m THEN GO TO 650
0
6007 LET m=m-v*fuelb
6008 PRINT "You have bought ";v*
fuelb;" gals"
6009 PRINT "That will cost you £
";v*fuelb
6010 PAUSE 100: LET f=f+v
6011 GO TO 9000
6500 CLS
6501 PRINT "You don't have that
amount of   money !"
6502 PAUSE 100
6503 GO TO 12
7000 PAPER 4: CLS
7001 PRINT "How much food do you
 want to buy"
```

```
7002 INPUT r
7003 LET rat=rat+r: LET rb=.1: I
F rb*r>m THEN GO TO 8500
7004 PRINT "That will cost you £
";rb*r
7005 LET m=m-rb*r
7006 PAUSE 100
7007 GO TO 9000
7990 STOP
7995 GO SUB 8510
7996 LET y=y+1: LET plato=plato+
1
7997 IF y=b THEN GO TO 8600
8000 CLS : POKE USR "₹"+0,BIN 00
000000
8001 POKE USR "₹"+1,BIN 00011110
8002 POKE USR "₹"+2,BIN 10000100
8003 POKE USR "₹"+3,BIN 11111111
8004 POKE USR "₹"+4,BIN 00001100
8005 POKE USR "₹"+5,BIN 00000100
8006 POKE USR "₹"+6,BIN 00000000
8007 POKE USR "₹"+7,BIN 00000000
8009 PRINT AT w,q;"₹": PAUSE 10
8010 PRINT AT 21,0;"
                    ": PRINT AT
0,0;"Plane no:";plato
8015 PRINT AT w,q;" "
8017 LET q=q+1
8018 IF q=7 THEN GO TO 8100
8019 GO TO 8009
8100 LET w=w-1
8101 LET q=q+1
8102 PRINT AT w,q;"₹"
8103 IF w=10 THEN GO TO 8199
8104 PAUSE 10
8105 PRINT AT w,q;" "
8106 PRINT AT 21,0;"
                    "
8107 GO TO 8100
8199 CLS
8200 LET q=q+1: PRINT AT 21,0;"
                    "
8201 IF q=32 THEN GO TO 7995
8202 PRINT AT w,q;"₹": PAUSE 10
8203 PRINT AT w,q;" "
8204 GO TO 8200
8499 STOP
8500 LET q=3: LET plato=1
8501 LET w=20: LET pilote=INT (R
ND*30): LET pilot=INT (RND*25)
8502 LET y=0
8504 LET rate=INT (RND*250000)
8505 LET rat=INT (RND*250000)
8510 LET q=3
8511 LET w=20
8512 RETURN
8600 CLS : LET ret=INT (RND*b)
8601 PRINT ret;" aircraft return
ed from the mission": PRINT
"You destroyed ";desa;" enemy ai
rcraft"
8602 LET yours=yours+ret: LET pi
lot=pilot+ret
8603 LET enemy=enemy-desa: PRINT
 AT 21,0;" Press any key to co
ntinue"
8604 IF INKEY$="" THEN GO TO 860
4
8605 GO TO 9000
8999 STOP
9000 CLS : PRINT "Enemy aircraft
";enemy
9001 PRINT "Enemy resourses:";AT
 3,0;"Money £";me: LET me=me-pil
ote
9002 PRINT "Fuel  ";fe;" gals"
9003 PRINT "Rations ";rate: LET
rate=rate-INT (RND*10000): PRINT
 "Pilots ";pilote
9004 PRINT AT 21,3;"Do you want
to copy this ?"
9005 IF INKEY$="" THEN GO TO 900
5
9006 IF INKEY$="y" THEN PRINT AT
 21,0;"
                    ": COPY
9007 PRINT AT 21,0;"  Press any
key to continue"
9010 IF INKEY$="" THEN GO TO 901
0
9998 CLS
9100 PRINT "Your Aircraft ";your
s
9101 PRINT AT 2,0;"Your resourse
s"
9102 PRINT "Money £";m: PRINT "Fu
el  ";f;" gals"
9103 PRINT "Rations ";rat: LET r
at=rat-INT (RND*10000): PRINT "
Pilots ";pilot: LET m=m-pilot
9104 PRINT AT 21,3;"Do you want
to copy this ?"
9105 IF INKEY$="" THEN GO TO 910
5
9106 IF INKEY$="y" THEN PRINT AT
 21,0;"
                    ": COPY
9107 PRINT AT 21,0;"  Press any
key to continue"
9109 IF INKEY$="" THEN GO TO 910
5
9110 IF fe<10 AND me<100 THEN GO
TO 9990
9111 IF rate<1000 AND me<100 THE
N GO TO 9990
9112 IF rat<1000 AND m<100 THEN
GO TO 9995
9113 IF f<27 AND m<100 THEN GO T
O 9995
9114 IF me<100 AND enemy=0 THEN
GO TO 9990
9115 IF m<100 AND yours=0 THEN G
O TO 9995
9116 IF enemy<3 THEN LET enemy=2
*enemy-10: LET me=me-INT (RND*6000
)
9117 IF me<100 THEN GO TO 9990
9118 IF fe<10 THEN LET fe=fe+100
0: LET me=me-1000
9119 IF rate<1000 THEN LET rate=
rate+10000: LET me=me-1000
9121 IF pilote<5 THEN LET pilote
=pilote+10: LET me=me-1000
9122 IF rat<100 THEN LET pilot=p
ilot+3
9123 IF rate<100 THEN LET pilote
=pilote-2
9200 GO TO 12
9900 CLS : PRINT "     You don't
have that many aircraft!"
9901 PAUSE 100
9902 CLS
9903 GO TO 12
9990 CLS : PRINT "You have defea
ted the enemy....."
9991 STOP
9995 CLS : PRINT "  You have bee
n defeated....."
9999 STOP
```

Continued from page 75

```
2140 INPUT "Dex:";a(player,6): P
RINT AT 13,24;a(player,6)
2145 INPUT "Cha:";a(player,7): P
RINT AT 14,24;a(player,7)
2150 PRINT AT 18,2; FLASH 1;"Pre
ss key to return to menu."
2155 IF INKEY$=CHR$ 13 THEN GO T
O 2155
2160 IF INKEY$="" THEN GO TO 216
0
2165 BEEP .1,5
2170 GO TO 22
2500 REM Clear One character
2510 GO SUB cls
2520 PRINT AT 3,6; INVERSE 1; IN
K 3;"Clear One Character"
2530 FOR z=1 TO 15: PRINT AT z+4
,3;z;TAB 7;p$(z);TAB 20;q$(z): N
EXT z
2540 INPUT "Choose character ";p
layer: IF player>15 OR player<1
THEN GO TO 2540
2550 GO SUB cls
2560 PRINT AT 3,6; INVERSE 1; IN
K 3;"Clear One Character"
2570 PRINT AT 6,3;"Are you sure
you want this";AT 7,3;"deleted?(
y/n)"
2580 LET z$=INKEY$: IF INKEY$=""
 THEN GO TO 2580
2590 IF z$="y" OR z$="Y" THEN BE
EP .1,5: GO TO 2620
2600 IF z$="n" OR z$="N" THEN BE
EP .1,5: GO TO 22
2610 GO TO 2580
2620 LET q$(player)=""
2625 LET p$(player)=""
2630 LET r$(player)=""
2635 LET c$(player)=""
2640 LET s$(player)=""
2645 FOR z=1 TO 7
2650 LET a(player,z)=0
2655 NEXT z
2660 FOR z=1 TO 3
2665 LET h(player,z)=0
2670 NEXT z
2680 PRINT AT 9,3;"Character No.
";player;" Cleared";AT 10,3;"fro
m memory banks."
2690 GO TO 502
3000 REM Clear all characters
3010 GO SUB cls
3020 PRINT BRIGHT 1;AT 3,6; INVE
RSE 1; INK 3;"Clear all characte
rs":
3030 PRINT BRIGHT 1;AT 6,3; FLAS
H 1; INK 2; PAPER 6;"
                    ";AT 7,3;"
  "; INVERSE 1;"WARNING"; INVERS
E 0;TAB 28;" ";AT 8,3;" ONCE CLE
ARED ALL              ";AT 9,3;" CHAR
ACTERS ARE LOST       ";AT 10,3;"
 COMPLETELY.                  ";AT 1
1,3;TAB 28;" "
3040 INPUT "Enter ""CLEAR"" to c
lear ";z$: IF z$="CLEAR" OR z$="
clear" THEN GO TO 3060
3050 GO TO 22
3060 FOR r=1 TO 15
3070 LET q$(r)=""
3080 LET p$(r)=""
3090 LET r$(r)=""
3100 LET c$(r)=""
3110 LET s$(r)=""
3120 FOR x=1 TO 7
3130 LET a(r,x)=0
3140 NEXT x
3150 FOR x=1 TO 3
3160 LET h(r,x)=0
3170 NEXT x
3180 NEXT r
3190 PRINT AT 6,3;TAB 28;" ";AT
7,3;" All characters cleared    "
;AT 8,3;" from memory.
   ";AT 9,3;TAB 28;" ";AT 10,3;T
AB 28;" ";AT 11,3;TAB 28;" "
3200 PRINT AT 18,2; FLASH 1;"Pre
ss key to return to menu.": IF I
NKEY$="" THEN GO TO 3200
3210 BEEP .1,5: GO TO 22
3500 REM Save characters
3510 GO SUB cls
3520 PRINT AT 3,7; INVERSE 1; IN
K 3;"SAVEing Characters"
3530 PRINT AT 5,3;"This will sav
e the entire";AT 6,3;"program an
d all the";AT 7,3;"characters an
d it will";AT 8,3;"take approx.
1 min 13 secs."
3540 SAVE "Character" LINE 1
3560 PRINT AT 18,5; FLASH 1;"Do
you want to Verify?"
3570 LET z$=INKEY$: IF z$="y" OR
 z$="Y" THEN BEEP .1,5: PRINT AT
 10,3;: VERIFY "": PRINT AT 18,3
;"Verified O.K.                "
3575 IF z$="" THEN GO TO 3570
3580 BEEP .1,5: GO SUB 9050: GO
TO 22
9000 REM Clear Screen
9010 FOR x=2 TO 19
9020 PRINT AT x,2; BRIGHT 1;TAB
29;" "
9030 NEXT x
9040 RETURN
9050 REM Border
9051 BRIGHT 0
9055 PRINT AT 0,0;"╳╳╳╳╳╳╳╳
╲╳╱╱╱╱╱╱╱╱╱"
9060 FOR x=2 TO 8 STEP 2
9065 PRINT AT x,0;"╳ ";AT x,30;"
 ╱ ╲";AT x+1,30;"╱ "
9070 NEXT x
9075 FOR x=10 TO 18 STEP 2
9080 PRINT AT x,0;" ╱";AT x,30;"
╲ ╱ ";AT x+1,30;" ╳"
9085 NEXT x
9090 PRINT AT 20,0;"
                ╱╱╱╱╱╱
╱╱╲╲╲╲╲╲╲╲╲╲"
9095 BRIGHT 1: RETURN
9850 REM Options
9855 RESTORE 9890: FOR x=1 TO 7:
 READ o$(x): NEXT x
9860 RETURN
9890 DATA "1 List character shee
t.","2 Adjust character sheet.",
"3 Copy character sheet.","4 Ent
er new character.","5 Clear one
character.","6 Clear all charact
ers.","7 Save character sheets."
9900 RESTORE 9980
9905 FOR q=144 TO 155
9910 FOR x=0 TO 7: READ b: POKE
USR CHR$ q+x,b: NEXT x
9915 NEXT q
9920 RETURN
9980 DATA 0,0,4,8,16,48,96,192
9981 DATA 128,0,0,0,0,0,0,0
9982 DATA 33,19,14,12,28,114,33,
0
9983 DATA 0,0,0,0,0,0,0,1
9984 DATA 0,132,78,56,48,112,200
,132
9985 DATA 3,6,12,8,16,32,0,0
9986 DATA 0,0,32,16,12,6,3,1
9987 DATA 0,0,0,0,0,0,0,128
9988 DATA 194,100,56,56,76,134,4
,0
9989 DATA 0,32,97,50,28,28,38,67
9990 DATA 1,0,0,0,0,0,0,0
9991 DATA 128,192,96,48,8,4,0,0
```

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So if you're getting edgy — relax. Don't do it. Somehow we'll get through it. Then your turn will come.

NEXT MONTH IN BIG K...

THE INS AND OUTS OF STRONTIUM DOG

Bringing any established comic character to computerised life is no mean undertaking. Bringing *2000 AD's* futuristic sinister bounty hunter STRONTIUM DOG to life is perilous indeed. We chart the anatomy of a new biggie . . .

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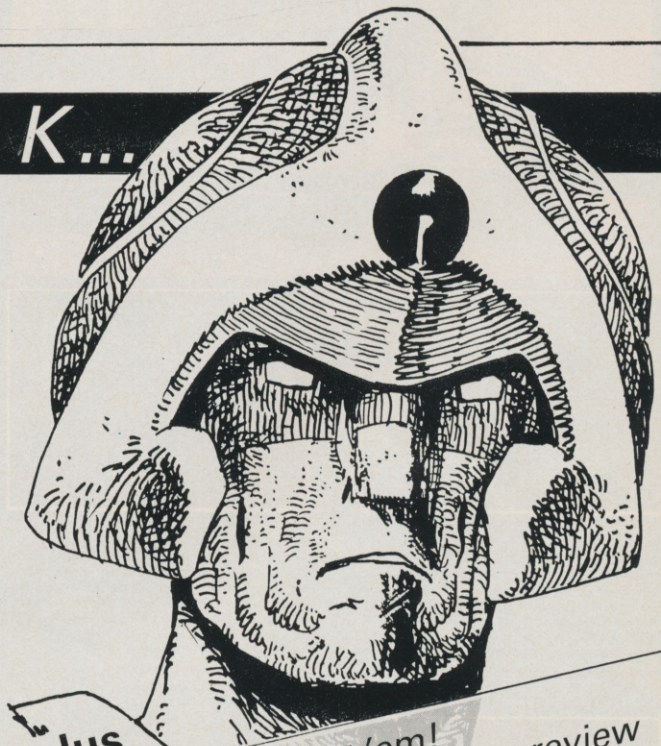

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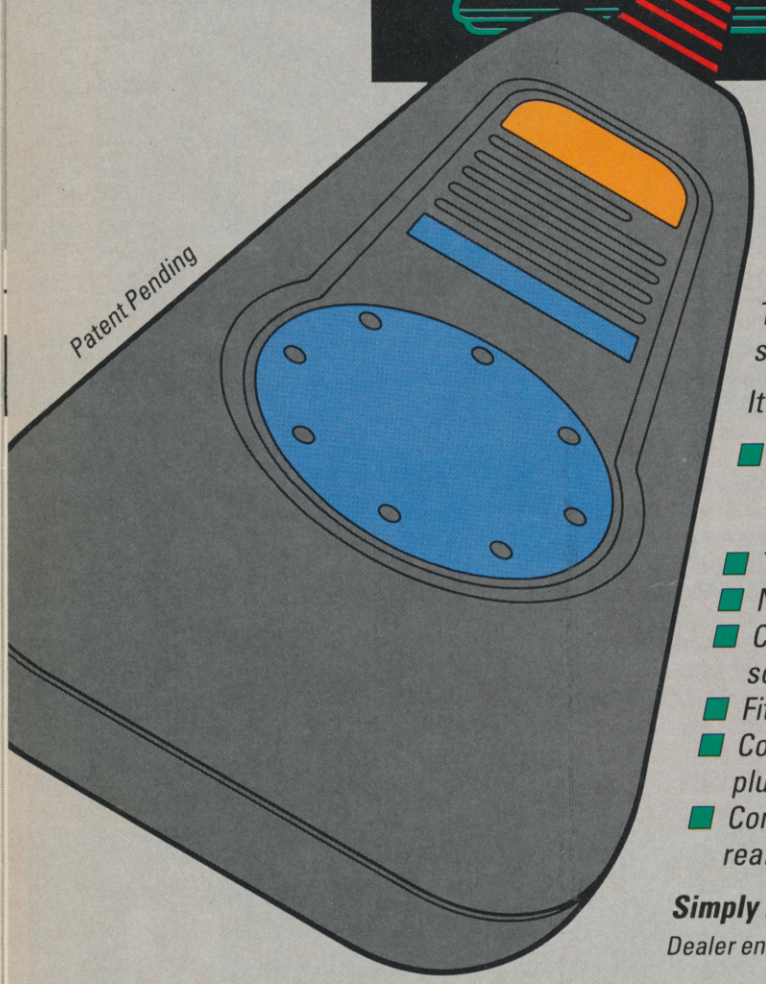

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Letters to BIG K

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Jet Set Willy — The Last Poke

THE FOLLOWING *Jet Set Willy* loader will eliminate all moving objects, allows you to jump from room to room, lets you fall from any height, clears the attic bug and will suck you up walls as if in a lift. And, of course, gives you infinite lives.

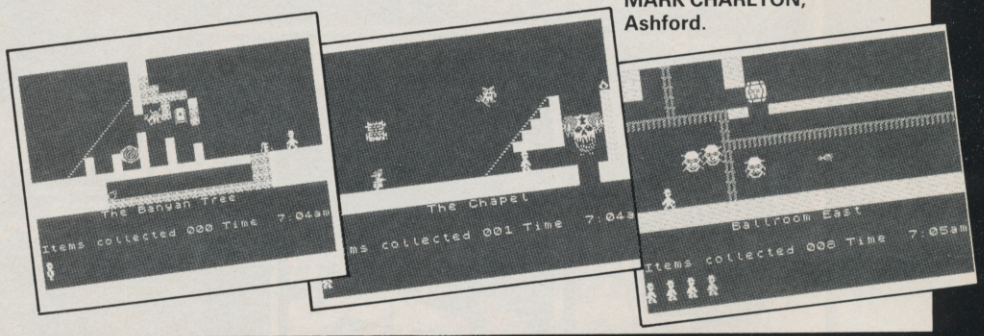
```
10 CLEAR 32767 : LOAD "" CODE
20 FOR A=43780 TO 45823 :POKE A,O: NEXT A
30 FOR A=46080 TO 49151 :POKE A,O: NEXT A
40 POKE 36477,1
50 RANDOMIZE USR 33792
```

To jump from room to room, go down the first landing, to the room with the long flight of stairs and a flashing cross. Move to the bottom of the stairs and input WRITETYPER. Then press key 9 and you should jump to the off-licence. You should now be able to jump freely from room to room. Make sure you go in the right position — or you'll discover the consequences!

If you want to get sucked up a wall, stand beneath it and press the jump key. This takes some getting used to, and is not possible on all walls.

In the nightmare room, quickly press jump and forward keys as soon as you enter. This will allow you to collect the single, high-up object in the room. Then leave. There's nothing else. Remember you'll be invisible in this room, but don't worry, you can't get killed.

MARK CHARLTON,
Ashford.



Five's the limit?

I TOTALLY agree with Paul Bellamy's views (BIG K 5). All software is vastly overpriced. Why shouldn't we make copies at £5 a throw?
NICHOLAS WATKINS,
Wolverhampton

Piracy Schmiracy

IF "COMPUTER software is, in the main rubbish", why does pirate Paul Bellamy lower himself to copy it? Why publish the views of someone breaking laws like a common shoplifter? I see enough piracy in school.
CHRIS HALL,
Belfast.

● We publish Paul's views for the same reason we publish your views — the day we stop publishing views, we're dead.

Fair Play

IN REPLY to Paul Bellamy, we think that major software breakthroughs like 'The Hobbit' or 'Lords of Midnight' deserve their high prices because of development costs. However, it's at the £6-7 mark that people get 'ripped off', for games that are just tired variations on familiar themes.

We've got six adventure games retailing at £1.95. Sure — we want to make money, but we don't want a cynical public and a market that boils down to fierce piracy protection, minimal content, and resentful punters.

M. K. WHITE,
8th Day Software,
Wirral.

Ethereal

WHILST playing my short wave radio, I came across a series of high pitched noises. I recorded them and played them into the old CBM 64 — and was amazed when they loaded. The result was a program jumble of confused characters and keywords. How can I translate these codes?

N. WHILLANS,
N. Ireland.

● **Sounds like you ran into a bit of BASICODE, of which the sole official transmitter is the BBC. The Beeb will supply you with an interpreter. Alternatively, you might have been tuning in to some sinister hacker of the airways passing on pirated pulses to a fellow plunderer. In which case, don't tell the Beeb.**

Bright — But Not Sharp!

I'VE only one thing to say about Mr. Bright, MP, who's trying to include our games in the Video Recordings Bill — he's stupid!
KIERAN NUTBROWN,
Huddersfield.

Hack Attack

I THINK the Bright Bill stinks. However, it could lead to a new breed of political games. How about *Revenge of the Mutant Tories,* or *Kinnock Kong?* Every session of Parliament is a game of *Dungeons and Dragons,* after all. (We won't mention *Manic Miner).*
CAMERON BLACK,
Glasgow.

Kwest For Kong

IN RESPONSE to Analechi Nivadi's quest for the best Commodore Kong — there's only one good Kong game for the Commodore. That's Anirog's.

ANDY CLARKE,
Warwickshire.

King of the Kongs

THE ALL-TIME great Kong game is the arcade *Donkey Kong,* by Nintendo.
NICK BARFOOT,
Colehill, Dorset.

Anagram

HOW COULD you do this to me? My name is not Analechi Nivadi — it is Anaelechi Nnadi.
A. NNADI,
London.

ETTERBASELETT

K edited by NICKY XIKLUNA

● Improve your handwriting, Annaline Leech.

Big Kool

ALL NEW magazines pack their first issues with the best stuff, and then get really average. Big K, however, has stayed hilarious, and manages to pack in its point too. Your views are the same as mine, and I agree with all your Classic Games choices.
M. J. DAVIES,
Dyfed, Wales.

● We agree with your Classic Mags choice, too.

Talk to Me!

IS THERE an interface available to connect a CBM 64 to a Spectrum? We both write programs and it would save us a lot of time in translation.
C. BRIDGER & T. FLYNN,
Merseyside.

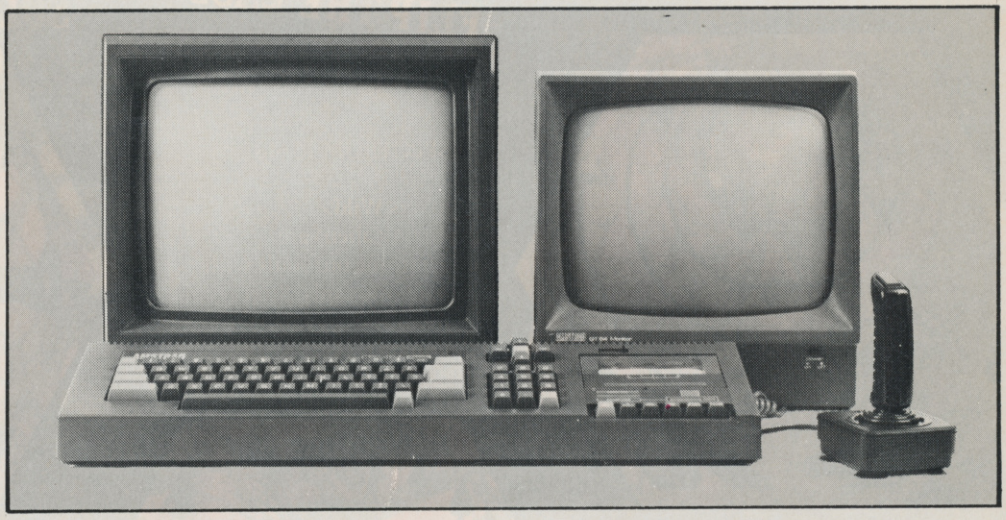
● Sorry, C. and T., but when have you ever heard of two rivals talking to each other?

First Edition

DO YOU think that the first issue of BIG K could be worth some money? If so, how much?
NG WAI TONG,
Kuala Lumpur,
Malaysia.

● YOU START the bidding, Ng old china, and we'll tell you if you're in with a chance.

Amstrad: Great Green, Costly Colour



AMSTRAD have made a mistake — the inclusion of the monitor in the price. If you buy the cheaper, green-screen model (£229) you lose one of the machine's best features. To get your colour back you must purchase a £30 modulator/power supply, and use your TV. So now you've got a redundant monitor.

Of course you could go for the colour model right from the start. But then £329 is above the average micro budget.

It would be better to hold the monitor, bung in a pair of joysticks and some software and run the thing off a TV. Surely most people have one of those?
NEIL OLNER, Doncaster.

● Good point, Neil — except that, as you say yourself, most people only have ONE TV. So when *Dynasty's* on, who gets the use of the Family VDU? *Les Parents,* every time. Also: TVs won't support 80-column display, and we think that Amstrad fancy their 'puter's chances as a small business micro (eventually).

Taking Shape

I DISCOVERED the following useful tricks whilst experimenting with my 48K Spectrum:

1. Type PLOT 128,88:DRAW 30,30.4E4 — a rotating shape appears on screen. By altering the third number in the DRAW statement, you can change the size and shape of the object.

To disable the BREAK key during a BASIC program, type POKE 23659,0. But note that the program won't stop to give reports (errors etc).
ELTIN LUNNY,
Dublin.

Another Kim Bites The Dust

I'M SURPRISED to find that Kim Aldis couldn't manage *Jet Power Pack* (BBC). It's easy. I haven't quite finished, but I've got to the fourth garage.
SARA HIRST,
Leeds.

● Kim has this co-ordination problem, you see . . .

Shut-Out At Atari

HERE ARE some tips for Atari owners who want to protect their progs.

1. To disable the BREAK key, include the following after every graphics command: POKE 16,64:POKE 53774,64

2. You can't disable the Atari's SYSTEM RESET, but POKE 580,1 will reset the cold start flag, thereby clearing any programs in RAM whenever the key is pressed.

3. For a 'run only' program, add the following line to the end of your programs: 32767 POKE(PEEK (138)+256*PEEK (139)+2), 0:SAVE"C:":NEW

4. For disc drivers, substitute the SAVE "D:FILENAME ":NEW Then type GOTO 32767 in the immediate mode and the program will be saved in a protected form. When loading use the command RUN"C:" or RUN "D:FILENAME". The program will then save and run itself. Pressing BREAK or loading in any other way will result in a lock up. Be careful — this method of prog protection won't even let you get a listing afterwards!
M. RAHMAN,
London.

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CBM 64

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By Brandon James

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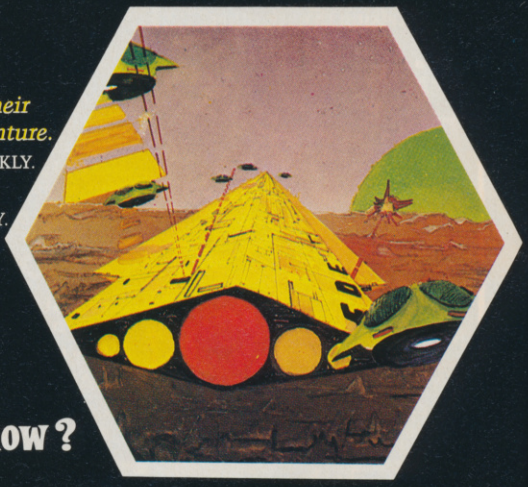
The corrupt Emperor must be eliminated and you have been chosen!
By Tyrone Howe



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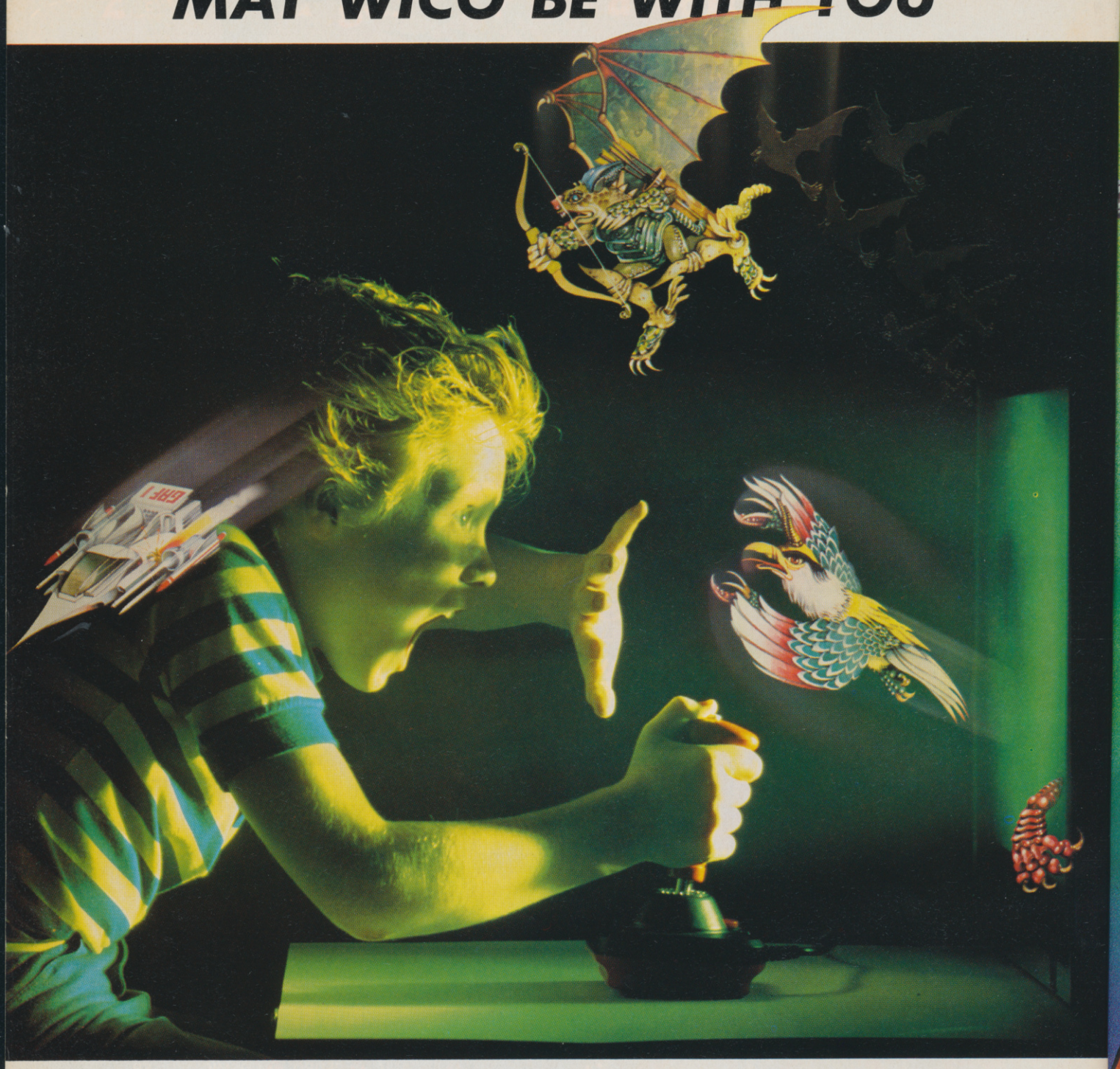

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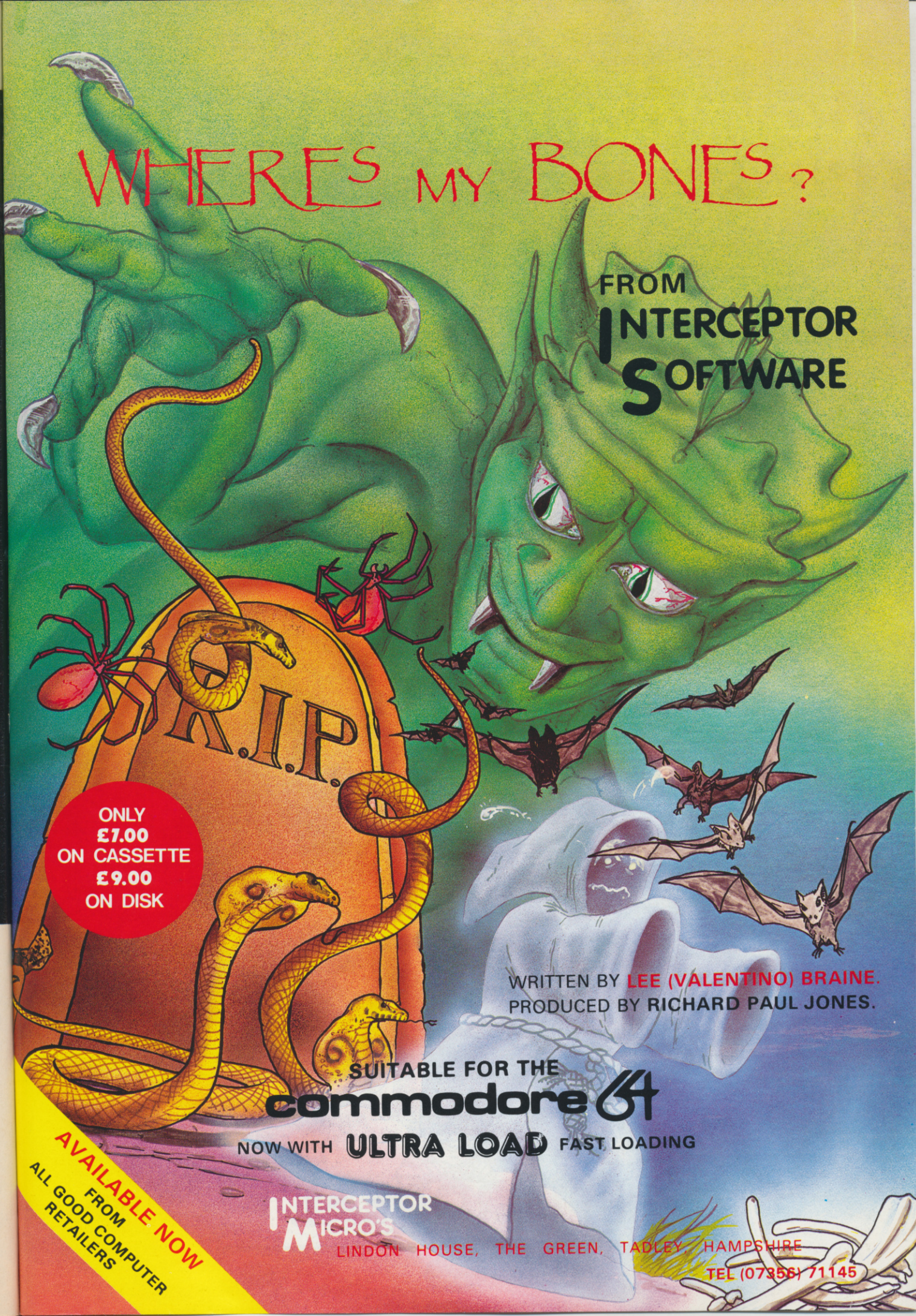
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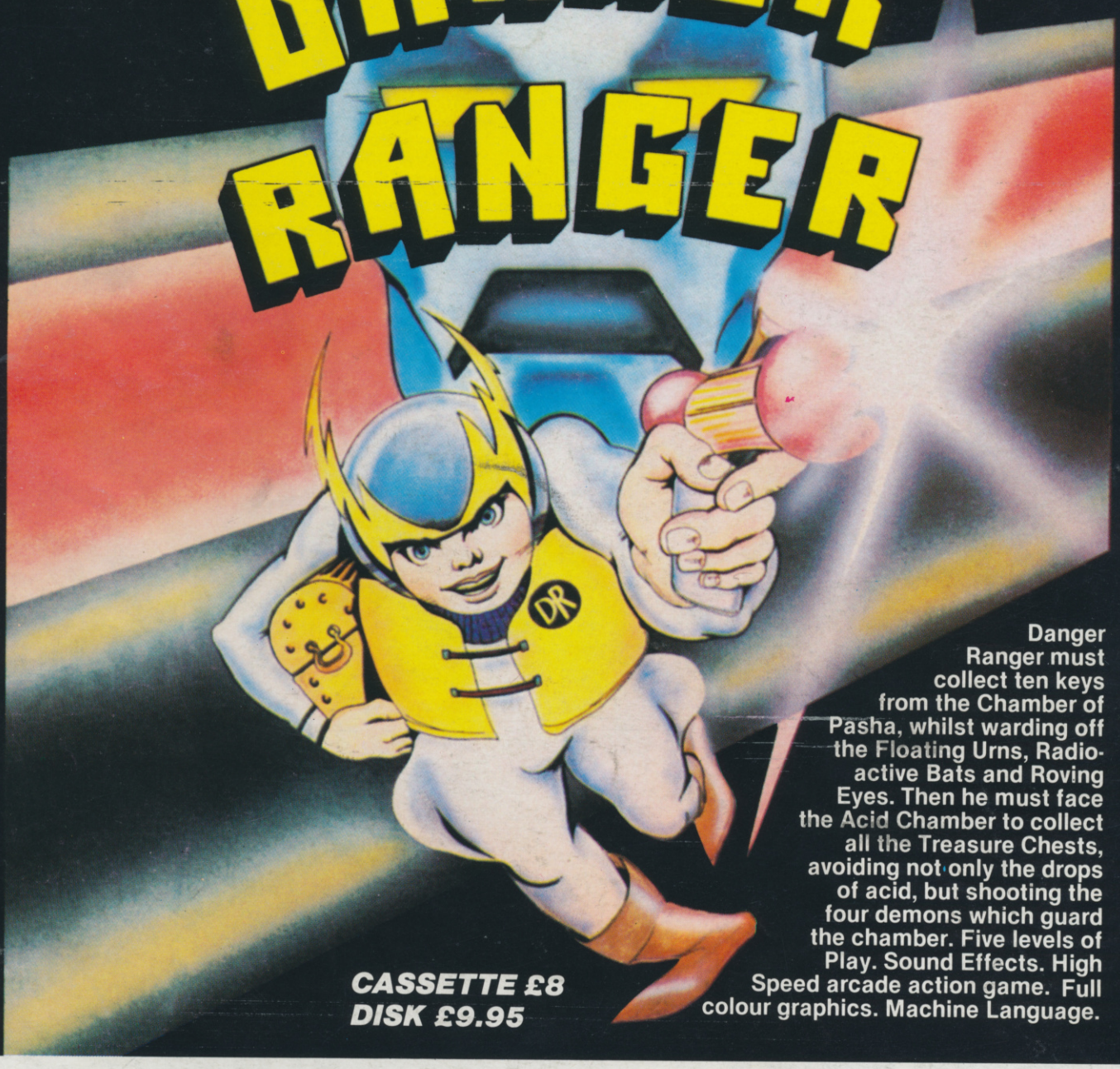

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